



As a Business Sales & Delivery Executive, you will support IBM's consistent growth by bringing to the table your business development, sales, account management, and delivery skills. Picture yourself working with a highly motivated, highly successful team with a proven sales record in IBM's top technologies. If you're ready to bring insights and experience in areas such as IoT, Blockchain and digital transformation, we are ready to offer you a best in class career development.

As a Business Sales & Delivery Executive, you will support IBM's consistent growth in Hybrid Cloud and AI by bringing to the table your business development, sales, account management, and delivery skills.

Picture yourself working in Brussels with a highly motivated and successful team with a proven sales record in IBM's top technologies. If you're ready to bring insights and experience in Multi Cloud, AI and digital transformation, we are ready to offer you a best in class career development.

#### **Your Role and Responsibilities**

- Sales & Delivery build strong, enduring client relationships while continuing to expand and grow business within their accounts, meeting set targets for signings, revenue and GP.
- Demonstrate personal commitment and responsibility for protecting and leveraging trusted client relationships, advocating for their clients and collaborating across IBM.
- Seek new opportunities to build a robust pipeline and drive the highest standards of delivery excellence
- Come with a client-centric culture, eminent externally and internally, known for deep subject matter and NATO expertise.

#### **Required Technical and Professional Expertise**

- Proven Business Development track record with at least 8 years experience in NATO/Defense/Police industry in IT sales, delivery, SME roles.
- Multi Cloud skills and deep knowledge of Defence and Aerospace Industry with an extensive network of contacts.
- Language skills: English, Dutch and or French – one native and a good understanding of the other

#### **Preferred Technical and Professional Expertise**

- Proven Business Development track record with at least 12 years experience in NATO/Defense/Police industry in IT sales, delivery, SME roles.
- Multi Cloud skills and deep knowledge of Defence and Aerospace Industry with an extensive network of contacts.
- Language skills: Fluent in English, Dutch and French



We are BioStrand, a start-up company ready to disrupt omics analysis. We have developed a completely new methodology for analysing omics data. We offer bio-informatics tools and provide in house target discovery and lead identification for the development of drugs, gene therapy, biomarkers etc.

### About your job

We are looking for a creative, daring and entrepreneurial mind to strengthen our core team.

At BioStrand, data engineers design the fundamental architecture of our platform technology. This means strategic thinking has to be your mindset.

We need your knowhow on analytical engine development to build a scalable SaaS system. You translate the algorithms of the data science team into robust, available cloud solutions. At all times you keep an eye on the system's entropy and guard it against spiralling down into chaos. You have an active role in the development process of our AWS cloud platform.

You will work in close collaboration with core team members. You will report on your progress directly to the CTO.

So, join us and put your mark on the backbone of our technology!

### Who are you?

- You have a Masters' degree in Computer Science engineering or Informatics or equivalent
- You are trained in or you have extensive experience with supporting cloud-native / SaaS software and you are familiar with AWS. You gained experience through executing multiple projects in different fields
- You have experience in application lifecycle management, continuous integration and necessary tools (Jira, Git, GKE etc.)
- You are trained in typed programming languages such as Go(Lang). Knowledge of Python is a plus. You know how to organise and write code to make it easy testable
- You have a good overview of the pros and cons of different storage engines (ElasticSearch, Redis, MongoDB, PostgreSQL, ...). So, you can make well informed decisions on what is needed to drive the backend services
- You have ample experience with distributed systems and service oriented architectures. You know how to deploy them reliably and understand their inherent complexities to keep them available and know how to deal with failures. You have first-hand experience in trouble shooting for distributed systems, i.e. partial failures, unreliable networks, unreliable clocks... Consistency, availability and partition tolerance are no strange terms to you
- You are familiar with decomposing applications in services, e.g. using domain-driven design
- You have experience with different data communication modes such as REST, gRPC, message-passing...
- Often overlooked, but very important due to the data we work with, you know how to implement proper security across the whole platform according to industry standards
- You are a dynamic self-starter; you are agile in planning and organizing your work
- You have strong written and oral communication skills in English
- You feel comfortable working in a fast-paced cross-functional environment
- You are an excellent team player, open to giving and receiving ideas, perspectives and feedback

### What's in it for you?

We offer you a full-time job. We are based at BioVille, near Hasselt University. You will be part of the dynamic core team of an amazing start-up company with huge ambitions.

This means there is a lot of space for personal initiative and growth opportunities. You will have an important role in disrupting -OMICS analysis and change the industry standards.

We offer you an opportunity to stand out and use all your creativity. Your effort is valued through a competitive remuneration package.



### Jouw functie

De Data Officer stelt de bank en meer in het bijzonder de Algemene Directie in staat om een transversaal en optimaal zicht te hebben op de gegevens. Om dit te bereiken, houdt de Data Officer toezicht op en begeleidt hij de initiatieven om de kwaliteit van de gegevens te verbeteren. Hij/zij roept de Data Council bijeen en is verantwoordelijk voor het beheer van de gegevens. De datafunctionaris heeft een alomvattend beeld van de wijze waarop datagovernance wordt uitgevoerd en leidt initiatieven om de kwaliteit van de gegevens te verbeteren. Tot slot initieert en beheert hij/zij projecten om de waarde van gegevens binnen de organisatie te verhogen.

### Functie

- Verzekeren van de toepassing en coördinatie van het beleid inzake Data Governance
- Ontwikkeling van een dashboard en monitoring van de indicatoren voor gegevenskwaliteit
- Centraliseer en zorg voor de oplossing van datakwaliteitsincidenten
- De Data Council bijeenroepen en het verslag opstellen
- Opstellen van een driemaandelijks verslag over de kwaliteit van de gegevens voor het auditcomité en het directiecomité
- Informeer het auditcomité, het risicocomité en het directiecomité van de voortgang van de implementatie van Data Governance
- Help business specialisten om mogelijkheden te identificeren om de waarde van gegevens te verhogen
- Bewaken en beheren van projecten die zijn ontworpen om de waarde van gegevens binnen de organisatie te verhogen

### Jouw troeven

- Je hebt een Master in informatica of economie of gelijkaardig door ervaring.
- Je bent in staat om met grote datasets te werken en daaruit conclusies te extrapoleren.
- Je hebt een sterk analytisch en probleemoplossend vermogen
- Je hebt een uitstekend inzicht in gegevensbeheer en -beheerfuncties (verzamelen, analyseren, distribueren, enz.)
- Je bent vertrouwd met moderne database- en informatiesysteemtechnologieën
- Je bent bekend met MS Office (Excel, Access, Word, etc.)
- Je hebt uitstekende communicatie- en samenwerkingsvaardigheden

Verhaert New Products & Services is een gerenommeerd productontwikkelingsbedrijf. Wij ontwikkelen innovatieve producten en systemen met een grote toegevoegde waarde voor onze klanten. Door onze jarenlange ervaring kunnen wij als geen ander bedrijven begeleiden en ondersteunen bij hun strategisch en innovatiebeleid. Onze medewerkers zijn zeer gedreven, multidisciplinaire hightech professionals die zich ten volle kunnen ontwikkelen in zeer diverse projecten voor verschillende bedrijven in zeer uiteenlopende sectoren: zoals: o.a. machinebouw, medische applicaties, voedings-, medische en farmaceutische industrie, automation, automotive, infotainment, ...

### Jouw uitdaging

- Als Embedded Software Ingenieur in hart en nieren, mag je je ten volle uitleven in het analyseren, ontwikkelen, simuleren, testen van embedded software oplossingen voor onze boeiende projecten.
- Je stelt een gedetailleerde analyse op.
- Je adviseert het projectteam over de aanpak en te gebruiken tools voor software (en idealiter ook voor hardware ontwerp).
- Je codeert de applicatie op een gestructureerde wijze en implementeert software op de meest diverse hardware platformen (CPU, MCU).
- Ook het testen en documenteren behoort ook tot je takenpakket.
- Je werkt nauw samen met je teamgenoten en de project manager.
- Je neemt de nodige initiatieven en motiveert je aanpak en keuzes ten aanzien van het projectteam.
- Jouw leergierigheid, inlevings- en aanpassingsvermogen helpen je de noden van de klant goed te begrijpen en efficiënt oplossingen voor te stellen en uit te werken.
- Verder word je betrokken bij o.a. code reviews, verbeteren van de ontwikkelprocessen, etc.
- Als embedded software engineer werk je zowel mee aan projecten in house als bij de klant wat je een mooie variatie aan projecten en omgevingen biedt.
- Het werken in deze dynamische en innovatieve omgevingen geeft je de gelegenheid een extra ervaring te verwerven en je kennis op verschillende vlakken steeds verder uit te diepen.

### Jouw profiel

- Master in de ingenieurs of industriële wetenschappen ICT, computerwetenschappen (burgerlijk of industrieel ingenieur) of gelijkwaardig door ervaring.
- Een professionele ervaring in embedded software is quasi onontbeerlijk.
- Zeer goede kennis van C/C++ programmeertaal en diverse ontwikkeltools.
- Kennis van ontwikkelmethodologie en software analyse.
- Kennis van en ervaring met Real-time operating systems.
- Basiskennis elektronica (microprocessors, digitale hardware, VHDL, ...) is eveneens een plus.
- Zin voor initiatief en kwaliteitsminded.
- Open geest, vlotte communicatie, klantgericht.

### Aanbod

- Een grote variatie aan projecten, bedrijven en sectoren die Verhaert begeleidt in hun ontwikkelings- en innovatietrajecten die telkens weer borg staan voor een nieuwe uitdaging.
- Je werkt samen in multidisciplinaire teams.
- Je bouwt mee aan het succes van een resultaatgerichte sterk technologische omgeving en u kan en mag je ten volle ontplooiën.
- Je stapt mee in de wereld van innovatie en bouwt mee aan de toekomst van tal van ondernemingen.
- Je motivatie, initiatief en inzet worden gewaardeerd met een marktconform verloningspakket.

At TomTom... You'll move the world forward. Every day, we create the most innovative mapping and location technologies to shape tomorrow's mobility for the better.

We are proud to be one team of more than 5,000 unique, curious, passionate problem-solvers spread across the world. We bring out the best in each other. And together, we help the automotive industry, businesses, developers, drivers, citizens and cities move towards a safe, autonomous world that is free of congestion and emissions.

#### What you'll do

- Work on tooling related to automated map making, not limited to implementation work but as well data analysis, design and deployment
- Devise innovative ideas for solving problems and translate these ideas into technical designs
- Be a contributor to our system architecture, able to prototype proposed solutions whilst giving support to the architect
- Be the go-to person to give advice, on software development and proof of concepts, in and outside the team. Place your stamp on the team through the mentoring of more junior Software Engineers
- Design, implement and maintain state-of-the-art algorithms in Java
- Work on the automation of data handling and data structures
- You will dive into the pile of metadata we gathered on our processes and write tooling to gather insights
- Use those insights to make recommendations to streamline the process
- Mentoring less experienced team members, working together on topics is something you feel comfortable with

#### What you'll need

- University degree in computer science or equivalent
- 8+ years of experience in complex software development
- You have solid experience with object-oriented programming languages and impressive coding skills
- You are willing to work with Java and upskill your Java background  
We are a problem solving company and prefer using the right tool for the job at hand, without restricting us to one language (e.g. machine learning applications typically done in Python)
- Experience with automated deployment and testing techniques and tools (e.g. Kubernetes)
- Knowledge of Cloud computing (e.g. Azure) or Big Data (e.g. Spark)
- Never-ending curiosity: technologies, paradigms and clean code
- Good knowledge of design patterns and clean code principles
- You enjoy working as part of a self-organizing team, keeping the focus on the team goals.
- Excellent communication skills, giving constructive feedback

#### What's nice to have

- Agile thinking
- Pro-active, pragmatic attitude: building solutions over writing papers
- Interest in or experience with data science / machine learning
- Being familiar with mapping/GIS principles is a plus

#### Meet your team

We're Maps, a product unit within TomTom's Location Technology Products technical unit. Our team is comprised of over 2,000 people in 40 countries – all driven to deliver the most up-to-date, accurate and detailed maps for the hundreds of millions of people using TomTom maps around the world. Joining our team, you'll help continuously innovate our map-making processes, create a real-time closed loop between detected changes in the real world and the users' map, and build maps that will enable the future of autonomous driving.

#### Achieve more

We are self-starters who play well with others. Every day, we solve new problems with creativity, meet new people and learn rapidly at our offices around the world. We will invest in your growth and are committed to supporting you. In everything we do, we're guided by six values: We care, putting our heart into what we do; we build trust (you can count on us); we create – driven to make a difference; we are confident, but don't boast; we keep it simple, since life is complex enough; and we have fun because life's too short to be boring.



## GEO SOLUTIONS

Als Belgisch bedrijf focust Geo Solutions zich om de mogelijkheden van locatie te laten schitteren bij onze klanten. Onze services richten zich op het design en de ontwikkeling van oplossingen op maat. Elk van onze oplossingen en strategieën zijn gebaseerd op Geographic Information Systems (GIS) en Information & Communication Technologies (ICT). We zorgen voor oplossingen waarmee ze effectief aan de slag

kunnen.

Verder verzorgen we analyses die de strategie en het operationele beslissingsproces van onze klanten ondersteunen en vergemakkelijken. Onze innovatieve en flexibele dienstverlening is vooral gericht op de overheid, nutsbedrijven en de industrie.

Waar je ons terugvindt? Wel, ons hoofdkantoor is gelegen in Edegem, maar we bieden ook flexplaatsen aan in onze hubs in Merelbeke en Leuven.

### Zo ziet jouw rol als Functioneel Analist eruit

Als Functioneel Analist sla je de brug tussen onze klanten enerzijds en het IT team anderzijds. Je bent het aanspreekpunt voor beide partijen, en zorgt voor een vlotte wisselwerking.

Een greep uit je takenpakket:

- Je analyseert en transformeert businessvragen van onze klanten tot duidelijke functionele en niet-functionele vereisten.
- Je praat met verschillende stakeholders en bekijkt samen met hen de verschillende invalshoeken van een systeem.
- Je ondersteunt het IT team bij de vertaling van functionele naar technische vereisten. Zonder *the bigger picture* uit het oog te verliezen.
- Je voert analyses uit, en zet die moeiteloos om naar conceptuele datamodellen.
- Je kan vlot nieuwe interfaces bedenken.
- Je verdiept je regelmatig in nieuwe vragen van klanten. En je bent er nog goed in ook.

### Daarom hebben we je nodig

Omdat jouw zin voor initiatief ons wel kan bekoren. Al zijn er nog veel meer redenen waarom jij en je expertise een meerwaarde zijn:

- Je hebt een diploma in IT, geografie, bio ingenieur, computerwetenschappen of gelijkaardig.
- Je blikt terug op een eerste ervaring met GIS toepassingen. En je bent klaar voor meer!
- Je bent vertrouwd met het wel en wee van een analytische rol, en geen enkele uitdaging schrikt je af.
- Je hebt niet alleen kennis van behavioral diagrams, je weet ze ook toe te passen en over te brengen. Van use case tot business process modelling en UML.
- Je toont graag je sterke analytische vaardigheden en verlegt regelmatig de grenzen van je conceptueel denkvermogen.
- Je bent goed in omgang met andere en een vlotte prater
- Je bent een go-getter met een can do mentaliteit.
- Je spreekt vlot Nederlands, but you know how to speak English et un petit peu de français aussi.

### Dit krijg je van ons

In ruil voor je betrokkenheid en ondernemende spirit geven we je een toffe job in een groeiend bedrijf. En dat in een bedrijfscultuur die kennisdeling en innovatie garandeert! Elke dag is anders, maar bijleren doe je altijd.

Bij Geo Solutions mag je rekenen op:

- Doorgroeimogelijkheden. Een training volgen via onze Geo Academy of liever een externe opleiding? Beide juichen we toe.
- Een gezonde work-life balance. Dat betekent fun binnen en buiten de werkuren en flexibele werktijden.
- Aandacht voor nieuwe ideeën. Dat hoort bij onze ondernemende en flexibele cultuur. Hier ben je geen nummer, wel een belangrijke aanwinst voor het team.
- State of the art technologieën. Je bouwt ze niet alleen, je werkt er ook mee!
- Een competitief salarispakket. Lees: een brutoloon dat wordt aangevuld met een bedrijfswagen en tankkaart, maandelijkse onkostenvergoeding, een maaltijdvergoeding en verzekeringen. Kortom: jij komt niets tekort.



ESRIN, Frascati, Italy

### Our team and mission

Φ-lab, a division of ESA's Future Systems Department, aims to fully embrace New Space and be the catalyst for radical innovation in Earth observation (EO). In particular, our vision is to become a kind of "hub" connecting a growing ecosystem of Artificial Intelligence (AI) capabilities across Europe. The power of AI for EO is at present largely untapped, and many challenges still need to be tackled at scientific, applications and capability levels to deliver maximum value from open EO data from satellites for our society and economy. See ESA Φ-lab Explore Office Research & Innovation (R&I) strategy, 2020 (<https://bit.ly/2VJRSrf>).

In particular, there is growing interest in "hybrid" AI computing, where training is done in the "cloud" while inference is performed at the "edge" in dedicated embedded AI accelerator chips. Such capability provides the foundation for smart connected sensors operating at the ultimate edge, in space. One example of this growing trend of embedded smart sensors is Φ-sat-1, an enhancement of the Federated Satellite Systems (FSSCat) mission launched in September 2020. It is one of the first experiments to demonstrate how AI (powered by a small Myriad chip) can be used for EO, in this case filtering out useless hyperspectral data due to cloud coverage. Such a technology demonstration experiment could stimulate new opportunities for upcoming ESA missions, including CubeSat missions but also possibly Copernicus missions (e.g. CHIME - Copernicus Hyperspectral Imaging Mission for the Environment). The ability to transmit small quantities of user-relevant insight in real time is crucial for the EO sector.

### Field(s) of activity/research for the traineeship

With the rise of hybrid AI computing and AI at the edge, a new set of challenges is coming for the EO community, arising from selection of the relevant applications that could be run at the edge. This concerns for example (1) the definition of adequate Deep Learning architectures, (2) the creation of synthetic data from existing datasets with simulated sensor capabilities, (3) model training and benchmarking, (4) model reduction via pruning and/or knowledge distillation, (5) use of active learning techniques for continuous updating of the deployed machine-learning architecture.

This applied research opportunity would enable tackling some of the above research challenges, and you are thus invited to suggest research activities in the following areas:

- New machine learning schemes and principles (e.g. unsupervised, active, frugal, automated)
- Hybrid computing and edge implementation (e.g. embedded systems, pruning, distillation).

These research activities should be applied to an EO domain you are particularly interested in and be in keeping with Φ-lab strategic research plans.

In addition to your main research activity, you will have the possibility to contribute to the general activities of the Φ-lab involving industry and research centres, and in general support Φ-lab activities in the community related to your expertise.

In particular, you will:

- Perform applied research in one of the above areas, bringing newly-developed AI technologies to upcoming smart space-borne EO sensors
- Contribute to development of an interactive environment for rapid prototyping and testing of new ideas
- Publish results in top-ranked, peer-reviewed publications
- Promote/share your results and tools through new digital tools, including social media and Jupyter Notebook
- Perform or participate in assessments on subjects of strategic interest to ESA.

### Some benefits of working at the Φ-lab

You will boost your personal development through the following:

- You will be exposed to the unique, broad competences of ESA and have access to well-known leaders in Earth observation, AI, ICT, the space industry and academia
- You will be able to build a network of international connections that will help you throughout your future career
- You will become part of the Φ-lab ESA community and its related networks.

Develop as researcher and/or industry innovation leader

- You will have the opportunity to lead changes in the growing AI4EO ecosystem, and promote and develop your ideas regarding EO, AI and a rapidly changing space sector
- You will be able to develop applied research in areas that interest you in an extremely innovative and stimulating environment
- You will have the opportunity to work on real applications that will impact European competitiveness (both scientific and industrial)
- You will have competitive conditions and be in the vicinity of the eternal city Rome, where the past meets the future in a growing ecosystem of innovators.

#### **Technical competencies**

- Knowledge relevant to the field of research
- Research/publication record
- Ability to conduct research autonomously
- Breadth of exposure coming from past and/or current research/activities
- General interest in space and space research
- Ability to gather and share relevant information

#### **Behavioural competencies**

- Innovation & Creativity
- Continuous Learning
- Communication
- Relationship Management
- Self Motivation
- Problem Solving
- Cross-Cultural Sensitivity

#### **Education**

You should have recently completed, or be close to completion of, a PhD in data science, AI, computer vision or similar engineering domains. Preference will be given to candidates awarded their doctorate within the past five years.

#### **Additional requirements**

You must also have:

- the ability to conduct pragmatic research leading to tangible results in-depth knowledge and interest in AI themes
- strong programming skills (Python)
- experience with machine/deep learning algorithms; a proven record (e.g. github) of using neural network frameworks (e.g. Torch, PyTorch, Tensorflow, Keras).
- The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.





Mons, Belgium

We are recruiting a IT Change Manager for Sapienza to work on our Customers Site (NATO NCIA)

### Responsibilities

- Apply and Execute the change management process and methodology
- Tables all Request for Changes (RFCs) for a Change Advisory Board (CAB) meeting, issues an agenda and circulates all requests for changes to Change Advisory Board members in advance of meetings to allow prior consideration Follow up on RFC with multiple stakeholders to ensure complete Release Package is available and all concerns are addressed
- Update the change log with all progress that occurs, including any actions to correct problems and/or take opportunities to improve service quality
- Support management in analyzing and process optimizations related to Change Management
- Prepare and track Emergency change end-to-end
- Guide Change Initiators in order for them to correctly create an RFC
- When required support with Configuration Management and Release & Deployment Management Activities
- Be able to facilitate meetings with various stakeholders to get to a common agreement
- Be able to drive a change request, under pressure, to completion based on urgent operational requirements.

### Profile

- You will hold a university degree, preferably equivalent to a Master's Degree in information systems engineering, information technology or related discipline. A formal post-secondary training in IT will be considered as an asset.
- In addition to the minimum of 5 years function related experience, you will be required to demonstrate:
  - Minimum ITIL Foundation – preferred ITIL Intermediate, Service Transition\
  - Experience in Configuration Management, Configuration Control and Change Management;
  - Practical experience in the usage of change and configuration management tools;
  - Experience with ITIL change and configuration management best practices;
  - Experience leading meetings and committees;
  - Knowledge of Quality Management principles;
  - Experience in the operation of Change Advisory Boards (CAB).
- We would consider it as an asset, if you can demonstrate experience in applying QA and IV&V procedures.
- Hold a valid NATO Secret Security Clearance

Pittsburgh, PA, USA

Facebook is seeking a Research Scientist to join Facebook AI Research (FAIR), a research organization focused on making significant progress in AI. Individuals in this role are expected to be recognized experts in identified research areas such as artificial intelligence, machine learning, computational statistics, and applied mathematics, particularly including areas such as deep learning, graphical models, reinforcement learning, computer perception, natural language processing and data representation. The ideal candidate will have a keen interest in producing new science to understand intelligence and technology to make computers more intelligent. To learn more about our research, visit <https://research.facebook.com> (<https://research.facebook.com/>).

### Responsibilities

- Lead research to advance the science and technology of intelligent machines.
- Lead research that enables learning the semantics of data (images, video, text, audio, speech and other modalities).
- Devise better data-driven models of human behavior.
- Work towards long-term ambitious research goals, while identifying intermediate milestones.
- Influence progress of relevant research communities by producing publications.
- Contribute research that can be applied to Facebook product development.
- Lead and collaborate on research projects within a globally based team.

### Minimum Qualifications

- Currently holding a faculty, industry, or government researcher position.
- Ph.D. and publications in machine learning, AI, computer science, statistics, applied mathematics, data science, or related technical fields.
- Experience leading a team in solving analytical problems using quantitative approaches.
- Experience manipulating and analyzing data from different sources.
- Experience in theoretical and empirical research and for answering questions with research.
- Ability to communicate research for public audiences of peers.
- Knowledge in a programming language.
- Ability to obtain and maintain work authorization in the country of employment in 2018.

### Preferred Qualifications

- 1+ year(s) of work experience in a university, industry, or government lab(s), in a role with primary emphasis on AI research.
- Experience driving original scholarship in collaboration with a team.
- First-author publications at peer-reviewed AI conferences (e.g. NIPS, CVPR, ICML, ICLR, ICCV, and ACL).
- Experience in developing and debugging in C/C++, Python, C# and/or Java.



Facebook Reality Labs (FRL) is a world leader in the design of virtual and augmented reality systems. We are currently seeking innovative researchers with a passion for technology to develop the next generation of interactive virtual humans. The focus of this role is on human full body motion and appearance capture, reconstruction and rendering. The position requires a combination of education and experience in computer vision, computer graphics, physics simulation and machine learning.

Sausalito, CA 94965, USA

#### Function

- Plan and execute cutting-edge research to advance the state-of-the-art in virtual humans.
- Develop new advanced technologies related to the generation of convincing virtual humans, like dense 3D surface reconstruction, physically based simulation, photorealistic capture and rendering methods, statistical deformation models, human biomechanics, or marker-less motion capture.
- Formulation of new machine learning, analysis, and simulation approaches for interactive virtual humans.
- Collaborate with other researchers, engineers, and 3D artists to prototype hardware and software solutions, experiments and concepts that advance the entire project.

#### Minimum Qualifications

- PhD in the field of Computer Graphics, Computer Science, Physics or Machine Learning with a proven academic track-record.
- First-authored publications at leading workshops or conferences such as CVPR, ECCV/ICCV, SIGGRAPH, NIPS, etc.
- 2+ years experience in realistic character generation, deformable geometry, photorealistic lighting, animation or physically based simulation.

#### Preferred Qualifications

- Experience with character generation for high-end VFX and/or video game applications.
- Proven track record of achieving significant results as demonstrated by grants, fellowships, patents.
- Experience with machine learning and state-of-the-art deep learning models (CNN, VAE, GAN).
- Demonstrated software engineer experience via an internship, work experience, coding competitions, or widely used contributions in open source repositories (e.g. GitHub).
- Experience with designing real-time systems in C++.
- Experience in realistic character generation, including deformable geometry, photorealistic lighting, or physically based simulation and animation.



At CERN, the European Organization for Nuclear Research, physicists and engineers are probing the fundamental structure of the universe. Using the world's largest and most complex scientific instruments, they study the basic constituents of matter - fundamental particles that are made to collide together at close to the speed of light. The process gives physicists clues about how particles interact, and provides insights into the fundamental laws of nature. Find out more on <http://home.cern>.

Geneva, Switzerland

### Job Description

CERN has approved in June 2020 the creation of a Quantum Technology Initiative to explore the potential applications of quantum technologies (computing, sensing, networks, and theory) to HEP research. The proposed work contributes to the implementation of the agreed objectives in the quantum computing area, establish a presence of CERN in the ongoing international quantum activities in HEP and other disciplines, and support the research objectives of the HL-LHC programme and beyond.

As a Fellow you will:

- Take part in the Quantum Computing R&D activities in CERN [openlab](#) as part of the CERN Quantum Technology Initiative;
- Contribute to the creation of a quantum computing simulation platform composed of classical hardware, specialized quantum simulators and remotely-accessed quantum hardware on which quantum version of ML/DL algorithms used in HEP can be developed and tested;
- Work with experts in [openlab](#) and the CERN experiments to identify use cases, develop algorithms, optimize simulators on different hardware and support doctoral students in the R&D projects.

### Qualifications

#### *Eligibility criteria*

- You are a national of a [CERN Member or Associate Member State](#);
- You have a PhD, or at least 4 years' relevant experience since the completion of your MSc (or the equivalent diploma which gives access to doctoral programmes) in Computer Science, Physics, Mathematics or in a similar relevant course, and in both cases a maximum limit of 10 years' experience after completion of you MSc.

#### *Essential skills and experience*

- Knowledge of basic quantum computing algorithms;
- Expertise on quantum simulators.

### Additional Information

CERN would very much like to benefit from your expertise, commitment and passion. In return, we offer:

- An employment contract for between six months (minimum) up to a maximum of 36 months. A regular fellowship duration is 24 months.
- A stipend ranging from 7,201 to 8,178 Swiss Francs per month (net of tax).
- Coverage by CERN's comprehensive health scheme (for yourself, your spouse and children), and membership of the CERN Pension Fund.
- Depending on your individual circumstances: an installation grant, family, child and infant allowances as well as travel expenses to and from Geneva.
- 2.5 days of paid leave per month.

**Functie**

- U ontwikkelt het sectoraal strategisch plan voor normalisatie en de daaruit volgende gecoördineerde acties en ziet toe op de uitvoering hiervan: nieuw formaat, communicatie, opleiding, ...
- U ontwikkelt nieuwe sectorprocedures en certificeringsregels voor de bijwerking van het sectoraal referentiewoordenboek: SLA's, versioning, ...
- U begeleidt de overgang naar een nieuwe standaard die het gebruik van nieuwe API, JSON / XML-technologieën mogelijk maakt
- U staat in voor de vastlegging en ontwikkeling van de normen & standaarden voor elektronische gegevensuitwisseling in de verzekeringssector in België
- U volgt de ontwikkelingen in de verzekeringstakken nauwgezet op en hanteert deze info in het licht van nieuwe ontwikkelingen op het vlak van standaarden
- U legt de indicatoren (KPI's) vast voor de opvolging van de impact en de werking van het Telebib-centrum
- U onderneemt de nodige acties om de norm bij de sector te promoten: publicaties, brochures, website, ...
- U coördineert de werkzaamheden van de instanties en werkgroepen en verzekert de opvolging ervan
- U bent het sectorale aanspreekpunt (nationaal & internationaal) voor vragen over de normen & standaarden
- U rapporteert aan het sectoraal strategisch comité voor normalisatie
- U zult hierbij nauw samenwerken met Portima (operator van het netwerk Portima Connect), zodat de norm eenvoudig en snel in de sector kan worden gebruikt.

**Profiel**

- Master informatica of gelijkwaardig
- Actieve kennis van XML & JSON, modellerings- & validatietools
- Kennis van de werking van API's : OAS (Open API Standard) & Swagger
- Kennis van EDI en idealiter het Telebib-formaat is een pluspunt
- Kennis van de verzekeringssector in de brede zin van het woord: contractuele processen, terminologie, producten, distributiekkanalen, stakeholders, procedures, ...
- Operationeel tweetalig (NL/FR) en goed kunnen communiceren in het Engels
- Goede communicatieve vaardigheden, zowel mondeling als schriftelijk
- Strikt en nauwkeurig, met een georganiseerde en gestructureerde werkaanpak
- Zin voor initiatief, autonoom, diplomatisch, klant- en resultaatgericht

**Aanbod**

Wij bieden u een functie vol uitdagingen binnen een dynamisch en gemotiveerd team, een toegankelijk management en een stabiele en aangename werkomgeving. Uitgebreide opleidingsmogelijkheden. Een aantrekkelijk loon met talrijke extralegale voordelen.

At TomTom...

You'll move the world forward. Every day, we create the most innovative mapping and location technologies to shape tomorrow's mobility for the better.

We are proud to be one team of more than 5,000 unique, curious, passionate problem-solvers spread across the world. We bring out the best in each other. And together, we help the automotive industry, businesses, developers, drivers, citizens and cities move towards a safe, autonomous world that is free of congestion and emissions.

### What you'll do

As part of a multicultural, multi-locations team, you'll be improving and extending our unique transactional map-making platform that is capable of handling 2.4 Million map modifications/14 TB of data traffic per hour with strong emphasize on security aspects.

- Produce great, elegant and simple deliverables in a dynamic, diverse and collaborative
- Maintain, improve and extend the current software and infrastructure stack with new functionalities, being part of a development team using Agile methodologies displaying the desire to continuously improve
- Solve business needs by building, testing and documenting software, deploying and maintaining it on production according to the DevOps philosophy
- Exchange knowledge with our talented engineers and solve a wide range of complex challenges
- Help grow other engineers by applying coaching and mentoring techniques while contributing to advancing our engineering culture
- Promote improvements for software development practices, processes and standards with consideration of quality, innovation, productivity and security
- Assist the Product Owner in converting high-level requirements into smaller, estimated work packages
- Work in an international team placed across two countries, being enabled to choose the workspace that will help to achieve your and TomTom's goals. We will offer you space in our Gent office for office-based tasks requiring your presence in the office and support you with one-time home office set up benefit, making sure you can improve your home office environment.

### What you'll need

- You will be working in Agile teams consisting out of true craftsmen delivering high quality code by applying design patterns, TDD, SOLID principle and secure software development practices.
- Practical knowledge in secure software development (authentication, authorization, secrets handling, data leak prevention)
- Experience with cloud identity and access management solutions (AWS Cognito, AWS IAM, Azure AD)
- Experience in securing microservices (OAuth 2.0, OpenID Connect)
- Development background and knowledge of scripting languages will be a plus
- Excellent communication skills allowing efficient communication in English with your teammates, architects, scrum masters, product owners and product managers
- Experience with distributed Systems, Cloud Computing (AWS, Azure), Continuous Deployment (Docker, Terraform, Kubernetes), System Monitoring (Kibana, Grafana), PostgreSQL, Linux environment and script languages (Python, Bash)
- Eagerness to learn and continuously improve your skills, keeping up with evolutions in the technology industry
- Practical knowledge of object-oriented design principles, testing practices, building robust, scalable and performant webservices
- Courage to ask questions and constructively challenge others

### What's nice to have

Experience with

- Technical leadership and software system architecture
- Java development experience
- Big Data, Geospatial processing, Machine learning & Artificial Intelligence
- Hands on experience with SSDLC
- AWS/Azure security certifications

**Meet your team**

We're CPP, which stands for Content Production Platform – TomTom's proprietary transactional map-making platform that supports TomTom's maps, and the hundreds of millions of people around the world who use them. We're a product unit within TomTom's Location Technology Products technical unit. On our team, you'll work on map production, maintenance, transformation, release access and more as you help create leading mapping technology for a moving world.

**Achieve more**

We are self-starters who play well with others. Every day, we solve new problems with creativity, meet new people and learn rapidly at our offices around the world. We will invest in your growth and are committed to supporting you. In everything we do, we're guided by six values: We care, putting our heart into what we do; we build trust (you can count on us); we create – driven to make a difference; we are confident, but don't boast; we keep it simple, since life is complex enough; and we have fun because life's too short to be boring.



# VACATURE

**De Koninklijke Sterrenwacht van België (KSB) is op zoek naar een wetenschapper (met een Master of PhD) om het DELPHFI-team te versterken. Het DELPHFI-project heeft als doel ons begrip en voorspellingsvermogen van zonnevlammen te vergroten door gebruik te maken van Deep Learning-technieken.**

## HET PROJECT

DELPHFI (DEep Learning Prediction and Hindsight of Flare Initiation) is een samenwerkingsproject tussen de KSB en de KU Leuven. Het kadert binnen het Brain-be 2.0-project dat gefinancierd wordt door het Belgisch Federaal Wetenschapsbeleid (BELSPO). Het beoogt:

- ons begrip van de mechanismen die tot zonnevlammen leiden te verbeteren, dankzij de interpretatie van de resultaten die worden verkregen door moderne Machine Learning-technieken. Zonnevlammen ontstaan in de “actieve gebieden” van de zon. Het zijn plotse energie-uitbarstingen waarbij veel straling uitgezonden wordt in een zeer breed scala aan golflengten gaande van het röntgen- tot het radiogebied;
- aan te tonen hoe moderne Machine Learning-technieken, gebaseerd op de automatische extractie van kenmerken van actieve gebieden, betere voorspellingen van zonnevlammen kunnen opleveren dan menselijke operators of bestaande automatische methoden;
- de expertise van de KSB in de ontwikkeling van voorspellingen van zonnevlammen via Machine Learning te vergroten, en om de basis te leggen voor een nieuw operationele tool en de mogelijke uitbreiding ervan naar andere soorten eruptieve gebeurtenissen.

De succesvolle kandidaat zal:

- deelnemen aan de creatie en de pre-processing van de zonnedatasets (tijdreeksen van beelden in verschillende golflengten) die in de neurale netwerken worden ingevoerd;
- verschillende algoritmen voor Deep Learning neurale netwerken pre-selecteren en deze trainen om de voorspellingscapaciteit voor zonnevlammen te optimaliseren;
- explainable methoden gebruiken om de resultaten te interpreteren;
- bijdragen aan de peer-review publicaties van het project.

Het eerste contract heeft een looptijd van één jaar en kan worden verlengd afhankelijk van de beschikbare budgetten.



## DE KONINKLIJKE STERRENWACHT VAN BELGIË

De KSB (<https://www.astro.oma.be/nl/>) is een Belgisch federaal instituut in de groene rand van Brussel (Ukkel). Het operationele directoraat "Solar Physics and Space Weather" (<http://sidc.be>) is voorstander van een kruisbestuiving tussen fundamenteel zonne-onderzoek en operationele ruimteweervoorspellingsdiensten (ISES Regional Warning Center of Belgium, Solar Weather Expert Service Centre of the ESA Safety & Security Program, en lid van het PECASUS-consortium).

De sociale zekerheid, het pensioenplan en de arbeidsvoorwaarden zijn bepaald volgens het Belgische contractuele ambtenarenreglement (salarisschaal SW1 van het wetenschappelijk personeel). Deze omvatten een flexibel systeem van werktijden en teleworking.

## JOUW PROFIEL

De ideale kandidaat combineert een maximum van de volgende eigenschappen:

- in het bezit zijn van een Master of PhD met een ruime ervaring in het gebruik van Deep Learning-technieken, vooral in relatie tot beeldanalyse;
- goede programmeervaardigheden, bekend zijn met Machine Learning bibliotheken (zoals Keras, PyTorch of scikit-learn);
- up-to-date kennis en vaardigheden in recente Machine Learning-tools en -technieken;
- vlotte communicatie in geschreven en gesproken Engels;
- ervaring in zonnephysica is een voordeel.

## HOE JE KANDIDATUUR INDIENEN?

Stuur je CV, een motivatiebrief en minimaal één aanbevelingsbrief naar de coördinator van het DELPHFI-project, dr. Laurent Dolla ([laurent.dolla@oma.be](mailto:laurent.dolla@oma.be)), met kopie naar [hrrob@oma.be](mailto:hrrob@oma.be). Vragen en verzoeken om meer informatie dienen naar hetzelfde e-mailadres te worden gestuurd.

De vacature is per direct beschikbaar, om uiterlijk in oktober 2021 te beginnen. De deadline voor de kandidatuurstellingen is 4 april 2021 (inclusief).