SIMON RENUART

AI Software Engineer

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SUMMARY

AI Software Engineer with over 3 years of experience in designing, implementing, scaling, and deploying AI computer vision solutions. Proficient in the Nvidia AI stack with experience with Apache Kafka and Flink. Passionate about tackling challenging projects that push boundaries and require continuous learning of the latest innovations and technologies. A genuine team player dedicated to fostering collaboration through effective communication and knowledge sharing.

SKILLS

Programming
- Python
- C++
- Bash
- Java
- SQL
- HTML/CSS

Technologies and Tools
- Docker
- Linux
- Apache Flink
- Apache Kafka
- FFMPEG
- GStreamer
- Tensorflow
- PyTorch
- Darknet (YOLO)
- Azure Pipelines
- Github Actions
- Nvidia AI stack
  - Jetson platforms
  - Deepstream
  - TensorRT
  - TAO Toolkit
  - Model Analyzer
  - Dynamo-Triton
- IP/CSI cameras
- Sensors
- Nginx
- OSS self-hosting

EXPERIENCE

AI Software Engineer - TRU Recognition, Melbourne (Australia) **Nov 2023 – Present**
- Lead the design, implementation and deployment of real-time computer vision solutions using the Nvidia AI stack for cloud and on-premises environments (200+ cameras) in retail and security sectors.
- Optimise throughput, latency and accuracy of computer vision solutions to ensure peak performance on Nvidia L4 and A10 GPUs.
- Process thousands of events per second via Apache Kafka and Apache Flink, transforming and aggregating sensor data into actionable insights.
- Establish and maintain data-driven metrics to evaluate models and multi-object tracking systems for production readiness.

AI Software Engineer - Phoenix AI, Peruwelz (Belgium) **Sep 2021 – Jan 2023**
- Developed and deployed real-time computer vision solutions using the Nvidia AI stack for Nvidia Jetson platforms.
- Established processes to build image datasets, train models and continuously improve solution performance.
- Integrated Jetson-based systems with in-country cloud platforms (UK, Belgium, France) to transmit real-time events over cellular networks while ensuring data sovereignty.
- Managed Nvidia Jetson setup, including OS and library installation (Nvidia JetPack), bootloader configuration and integration of peripherals such as IP cameras, GPS, mobile data and voltage sensors.

Computer Vision Software Engineer Intern - Infrabel, Brussels (Belgium) **Jul 2020 – Sep 2020**
- Developed OpenCV-based computer vision algorithms to monitor countersink tolerances for industrial defect detection.
- Built image datasets and trained deep learning models to detect defects on manufactured concrete surfaces.

EDUCATION

Master's degree, Computer Engineering and Management **2019 – 2021**
UMONS Faculty of Engineering (FPMS)
Specialization: Artificial Intelligence and Decision Aid
Grade: Great Distinction

Bachelor's degree, Applied Sciences Engineering **2015 – 2019**
UMONS Faculty of Engineering (FPMS)

LANGUAGES

French - Native
English - Professional
Dutch - Intermediate

INTERESTS

- **Efficient computing**
- **Creative problem solving**
- **Artificial Intelligence**
- **Cooking**
- **Surfing**

OTHER

References - Available upon request
Driving license - Yes
Valid 482 visa - Yes