Solutions Architect Necko Technologies Hainaut, Belgium

Maximilien Charlier, PhD



AWS Cloud Engineer and Solutions Architect with 4+ years of hands-on AWS development, deployment and maintenance using Python and AWS CDK. Serverless, IoT and data platforms, with occasional architecture design and AWS Well-Architected Reviews. PhD in Computer Science; AWS Golden Jacket holder, 17 AWS certifications.

linkedin.com/in/maximilien-charlier github.com/maxcharlier

4+ Years of hands-on AWS development

17 AWS certifications – Golden Jacket

500+ LoRaWAN sensors across 9 countries

4 Peer-reviewed publications

EXPERIENCE

Cloud engineering & research

Solutions Architect

Oct. 2025 – Present

Necko Technologies · Mons

Solutions Architect for an AWS Advanced Consulting and Well-Architected Partner. Taking clients from discovery to production: qualifying business needs, designing the target AWS architecture, sizing cost and effort, and leading implementation. Specialised in IoT and data platforms, and in Well-Architected reviews.

Cloud Developer

Jan. 2022 – Present

Necko Technologies · Mons

Developed and maintained AWS applications with Python and AWS CDK. Since October 2025, continuing hands-on cloud development alongside my Solutions Architect role.

- Migrated a scheduled Windows Python job to Lambda, Step Functions and EventBridge; improved reliability, reduced errors and added CloudWatch/SNS alerts.
- Developed and maintained IoT and simulation platforms; orchestrated hours-long computations with Step Functions, EC2 and Lambda.
- Built serverless ETL pipelines for 20 plants; worked with Redshift for about a year, then adapted and maintained ingestion flows for a centralised system.
- Developed Python applications deployed via CI on on-premise Kubernetes and deployed applications on EKS; cluster administration by the infrastructure team. Industrialised deployments with AWS CDK.
- Deployed and maintained 500+ LoRaWAN sensors on AWS IoT Core across 26 plants in 9 countries; built REST APIs with FastAPI and API Gateway.

PhD Student (FRIA-FNRS)

Oct. 2017 – Dec. 2021

UMONS · Mons

Research on scalable UWB indoor positioning: Contiki-OS integration, UWB-TSCH MAC layer design and centralised scheduling algorithms.

Research Assistant

Aug. – Oct. 2017

FEDER – IDEES · Mons

Research on RPL (IPv6 routing for low-power networks) and wireless connectivity in linear topologies.

Internship

Jul. – Oct. 2016

Numeca International · Brussels

Compared Ogre3D and Qt3D; developed a scientific visualisation prototype with C++, Qt and GLSL shaders.

EDUCATION

2022 **PhD in Sciences**
University of Mons

2017 **Master in Computer Science**
University of Mons – great distinction, best master thesis award (19/20)

2015 **Bachelor in Computer Science**
University of Mons – distinction

2012 **Complementary year in mathematics**
Athénée Royal de Mons 1

SKILLS

AWS & Serverless. Lambda, Step Functions, EventBridge, API Gateway, S3, EC2, AWS IoT Core, EKS

Infrastructure as Code. AWS CDK (Python), CloudFormation

Development. Python, TypeScript, FastAPI, REST APIs, C

DevOps & Containers. CI/CD, Git, Docker, Kubernetes (application deployment)

Monitoring. CloudWatch, SNS

Data. Redshift, DynamoDB, PostgreSQL, Snowflake, MySQL, Oracle

Cloud Governance. AWS Organizations, landing zones, SCPs, multi-account environments

Architecture. Well-Architected, Serverless, Event-driven

IoT. LoRaWAN, IEEE 802.15.4 UWB

LANGUAGES

French – Native

English – Professional (Scientific writing & speaking)



AWS GOLDEN JACKET

17 AWS certifications — every one available

Awarded to professionals who hold all AWS certifications: curiosity to master every domain, and the discipline to keep that knowledge current on an ever-evolving platform.



Solutions Architect
Professional
since Jun. 2023



DevOps Engineer
Professional
since Jul. 2023



Generative AI Developer
Professional
since Oct. 2026



Advanced Networking
Specialty
since Dec. 2024



Machine Learning
Specialty
since Oct. 2024



Security
Specialty
since Jun. 2024



Database
Specialty
since Mar. 2024



Data Analytics
Specialty
since Jan. 2024



CloudOps Engineer
Associate
since Oct. 2025



ML Engineer
Associate
since Sep. 2024



Data Engineer
Associate
since Feb. 2024



SysOps Administrator
Associate
since Dec. 2022



Developer
Associate
since Oct. 2022



Solutions Architect
Associate
since Sep. 2022



AI Business Strategist
Foundational
since Oct. 2026



AI Practitioner
Foundational
since Sep. 2024



Cloud Practitioner
Foundational
since Jan. 2022



Claude Certified Architect
Foundations
since Nov. 2026



PCAP – Python
Associate
since Sep. 2023

Also K8SUG Awstronaut · since Jan. 2025

PUBLIC TALKS

Nov. 2025 — **Connecting wireless sensors to AWS Cloud for real-time IoT monitoring**
Conference · DevDay.be – Mons, Belgium

Apr. 2025 — **Event-driven architecture with AWS IoT Core**
Meetup · AWS Meetup – Lille, France

Mar. 2025 — **MLOps & cloud engineering: implementing AI architectures on AWS**
University seminar · Computer Science Seminars, UMONS – with Adrien Vandekerckhove

Mar. 2024 — **Industrial wireless IoT in manufacturing with LoRaWAN and AWS IoT**
University seminar · Computer Science Seminars, UMONS – with Nicolas Decruyenaere

Feb. 2023 — **La puissance du Serverless dans AWS**
University seminar · Computer Science Seminars, UMONS

2017–2019 — **UWB localisation in high density and large scale**
Academic workshops · UMONS WSN workshops · WSN Meeting, VUB · IIoT Day, University of Strasbourg

PUBLICATIONS

2022 — **Scheduling UWB ranging and backbone communications in a pure wireless indoor positioning system**
Charlier, Koutsiamanis, Quoitin – MDPI IoT, vol. 3

2019 — **UWB-TSCH: time and frequency division multiplexing for UWB communications**
Charlier, Quoitin, Hauweele – CORES 2019

2019 — **Challenges in using Time Slotted Channel Hopping with Ultra Wideband communications**
Charlier, Quoitin, Hauweele – ACM IoTDI '19, Montréal

2016 — **Support for IEEE 802.15.4 ultra wideband communications in the Contiki operating system**
Charlier, Quoitin, Bette et al. – IEEE SCVT 2016, Mons

OUTSIDE WORK

IoT/Arduino
Photography
DIY
Climbing

Full CV, talks & slides
maximilien-charlier.be/cv/

Generated November 2026