

# Marc Vernet SOFTWARE ENGINEER

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Software Engineering • Full Stack Development • Cloud Solutions • Machine Learning • DevOps

AWS • Kotlin • Python • React • Rust • CI/CD • ML/AI • Distributed Systems

## WORK EXPERIENCE

### Software Development Engineer

Jul. 2022–Present

Amazon Luxembourg

Luxembourg

- Developed and maintained systems for processing worldwide logistics networks delivering millions of packages daily
- Collaborated on developing internal agentic AI tooling with **Rust**, used across all of Amazon
- Decreased system downtime with operational support processes across services used by 500+ users daily, resolving critical bugs and implementing requested features
- Streamlined development and reduced infrastructure maintenance time by 50% through implementing **CI/CD** pipeline with **AWS CDK** for internal applications
- Contributed to design and implementation of new service for network logistic simulations that delivered \$3.5M in optimization savings
- Improved code maintainability through orchestrating **Java-to-Kotlin** migration for 10,000+ lines of code and achieving 95% test coverage with new unit/integration tests
- Accelerated team growth by mentoring 2 interns to full-time conversion, producing technical documentation guides that reduced onboarding time by 50%
- Delivered on average 95% of sprint commitments while serving as Scrum Manager, additionally conducting over 200 code reviews

### Business Intelligence Engineer

Jan. 2022–Jul. 2022

Amazon Luxembourg

Luxembourg

- Increased internal database anomaly detection through implementing **ML**-powered infrastructure monitoring service, analyzing 1M+ data points daily
- Designed and developed UI for anomaly detection service with **React** and **AWS**, supporting 50 users daily
- Developed several HR BI dashboards collaborating with organization leadership, serving 10,000 monthly users
- Improved database performance through optimizing **SQL** queries for **AWS RDS** cluster, reducing average query time while serving 5 internal organizations
- Eliminated 40+ hours of manual work monthly by automating administrative tasks using **AWS Lambda** and **Python**, additionally implemented and deployed comprehensive **CI/CD** pipeline for these tools

### Research Intern

Jan. 2021–Jan. 2022

Universitat Rovira i Virgili (URV)

Barcelona, Spain

- Increased data completeness through developing **ML** predictive models for air pollution levels, processing daily measurements across 12 monitoring stations
- Collaborated as co-author on academic paper and scientific journal article, showcasing research findings

## EDUCATION

### B.S. in Data Science and Engineering

Sep. 2018–May 2022

Polytechnic University of Catalonia (UPC)

Barcelona, Spain

## TECHNICAL SKILLS

- **Languages:** Kotlin, TypeScript, Java, Rust, Python, SQL, C++
- **Frameworks:** React, Angular, Node.js, SpringBoot, Django, Rails, Nginx, LaTeX
- **Technologies:** RESTful APIs, Microservices, Linux/Unix, MySQL, PostgreSQL
- **Concepts:** Object-Oriented Programming, System Design, Agile Development, CI/CD, Test-Driven Development (TDD)
- **Cloud:** AWS CDK, AWS CI/CD pipelines, AWS Redshift, serverless development, AWS Lambda, CloudWatch

## CERTIFICATIONS

2023 AWS Solutions Architect (SAA-C03)

2022 AWS Certified Cloud Practitioner

2022 Cisco CCNA, Introduction to Networks