

Marc Vernet SOFTWARE ENGINEER

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WORK EXPERIENCE

Software Development Engineer

Jul. 2022–Present

Amazon Luxembourg

Luxembourg

- Delivered \$3.5M in annual optimization savings as measured by reduced logistics costs, by designing and implementing network simulation service that improved route efficiency.
- Enabled 30% reduction in development time as measured by feature delivery cycles, by developing internal agentic AI tooling with **Rust** used across all of Amazon.
- Improved code maintainability and reduced technical debt as measured by bug reduction and test coverage, by orchestrating **Java-to-Kotlin** migration for 10,000+ lines achieving 95% test coverage.
- Reduced infrastructure maintenance time by 50% as measured by operational overhead, by implementing **CI/CD** pipeline with **AWS CDK** enabling automated deployments.
- Maintained 99.9% uptime as measured by system availability, by developing and maintaining high-performance systems processing millions of packages daily across worldwide logistics networks.
- Reduced system downtime by 40% as measured by incident frequency, by implementing operational support processes and resolving critical bugs across services used by 500+ daily users.
- Accelerated team onboarding by 50% as measured by time-to-productivity, by mentoring 2 interns to full-time conversion and producing comprehensive technical documentation.
- Delivered 95% of sprint commitments as measured by sprint velocity, by serving as Scrum Manager and conducting 200+ code reviews ensuring code quality standards.
- Reduced system latency by 35% as measured by p99 response times, by implementing distributed caching layer using **Redis** and optimizing data access patterns across **microservices** architecture.

Business Intelligence Engineer

Jan. 2022–Jul. 2022

Amazon Luxembourg

Luxembourg

- Reduced false positives by 60% as measured by alert accuracy, by implementing **ML**-powered infrastructure monitoring service analyzing 1M+ data points daily for anomaly detection.
- Reduced average query time by 40% as measured by database performance metrics, by optimizing **SQL** queries for **AWS RDS** cluster serving 5 internal organizations.
- Eliminated 40+ hours of manual work monthly as measured by time savings, by automating administrative tasks using **AWS Lambda** and **Python** with comprehensive **CI/CD** pipeline.
- Enabled data-driven workforce decisions as measured by dashboard usage, by developing HR BI dashboards serving 10,000 monthly users and providing actionable insights for leadership.
- Improved anomaly detection response time by 80% as measured by alert latency, by designing and developing responsive UI with **React** and **AWS** supporting 50 daily users with real-time alerts.

Research Intern

Jan. 2021–Jan. 2022

Universitat Rovira i Virgili (URV)

Barcelona, Spain

- Improved prediction accuracy by 25% as measured by model performance metrics, by developing **ML** predictive models for air pollution levels processing daily measurements across 12 monitoring stations.
- Contributed to published research as measured by peer-reviewed publication, by co-authoring academic paper and scientific journal article in environmental research advancing air quality monitoring methodologies.

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
- **Software Engineering:** System Design, CI/CD, DevOps, Test-Driven Development (TDD), Agile/Scrum
- **Cloud:** AWS CDK, AWS CI/CD pipelines, AWS Redshift, serverless development, AWS Lambda, CloudWatch

CERTIFICATIONS

AWS Solutions Architect (SAA-C03) | AWS Certified Cloud Practitioner | Cisco CCNA, Introduction to Networks

EDUCATION

B.S. in Data Science and Engineering

Polytechnic University of Catalonia (UPC)

Sep. 2018–May 2022

Barcelona, Spain