

Matteo Ragazzini

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EXPERIENCE

AMAZON | SOFTWARE DEVELOPMENT ENGINEER

Munich, Germany | July 2023 - Present

- Developed a **Java** application to analyze Amazon's Same Day delivery network, identifying opportunities to increase delivery speed and extend service hours. Built interactive dashboards using **AWS Quicksight** to visualize network performance metrics.
- Led the design and development of an automated modeling framework using **AWS CDK, Lambda, Step Functions, DynamoDB, and REST APIs**. Automated manual modeling processes across multiple teams, saving 35% in analysts time (\$XXM annually).
- Built a full-stack planning support tool using **Python, AWS Step Functions, and React** that interacts with external APIs to compare forecasted plans against actual results, enabling VP-level strategic planning decisions.
- Served as the software engineering representative for a 200+ person organization, driving adoption of **security best practices**, code quality standards, and maintainable architecture.

AMAZON | BUSINESS INTELLIGENCE ENGINEER

Luxembourg, Luxembourg | Feb 2022 - July 2023

- Built a **SQL** data pipeline aggregating 12+ datasets to calculate granular delivery costs across Amazon's logistics network. Processed 5TB annually, enabled 65+ teams to identify cost-saving opportunities for SVP-level initiatives.
- Developed a real-time analytics pipeline in **Amazon Redshift** to monitor delivery performance, missed deliveries, and weather conditions at zip code level. Dashboard served 85+ users with 3,000+ total interactions, enabling optimized delivery commitments during adverse conditions.

PROJECTS

E-GO ELECTRIC VEHICLE CHARGING PLATFORM

MONGODB, EXPRESS, VUE, NODE.JS

Built a full-stack single page application to help users locate and reserve electric vehicle charging stations across Munich. RESTful APIs with Express and Node.js backend, MongoDB for data persistence, and a responsive Vue.js frontend for real-time station availability.

DISTRIBUTED REAL-TIME MULTIPLAYER GAME

DOCKER, RABBITMQ, VERT.X, MONGODB

Developed a distributed real-time word game with support for multiple concurrent matches. RabbitMQ for message queuing, Vert.x for reactive programming, and MongoDB for state persistence.

FUNCTIONAL TOWER DEFENSE GAME

SCALA, GRADLE, FUNCTIONAL PROGRAMMING

Built a strategy tower defense game in Scala applying functional programming principles. Immutable data structures, higher-order functions, and pure functional patterns for game logic and state management.

IOT SENSOR NETWORK WITH RTOS

C++, JAVA, REAL-TIME OS, EMBEDDED SYSTEMS

Developed embedded applications for IoT devices using Real-Time Operating Systems. Sensor data collection, real-time processing, and communication protocols in resource-constrained environments.

BOMBERMAN GAME REMAKE

JAVA, OBJECT-ORIENTED DESIGN

Recreated the classic Bomberman arcade game in Java with game mechanics, collision detection, power-ups, and AI-controlled opponents.

EDUCATION

Master of Engineering in Computer Science and Software Engineering

Bologna, Italy

UNIVERSITY OF BOLOGNA; GRADE 110L/110

Master of Science in Computer Science

Stockholm, Sweden

UNIVERSITY OF STOCKHOLM

Bachelor of Engineering in Computer Science and Software Engineering

Bologna, Italy

UNIVERSITY OF BOLOGNA; GRADE 108/110