

# Ana Baltaretu

✉ ana.baltaretu@outlook.com

🐙 github.com/ana-baltaretu

in linkedin.com/in/ana-baltaretu

## EXPERIENCE

**Software Development Engineer** *Jun 2021 - Sept 2021*  
Amazon Web Services (AWS) *Berlin, Germany*

Worked as an intern in the SageMaker Autopilot team at AWS, which deals with automating machine learning pipeline tasks to streamline model building, training, and deployment.

**Performance benchmarking AWS-Lambda microservice**

- Numerically evaluated cold and warm start latencies, leading to the adoption of AWS-Lambda for the service.
- Automated performance testing with Python and Docker, delivering detailed reports on impact.

**SCRUM and Agile Practices**

- Participated in SCRUM ceremonies, including sprint planning and retrospectives.
- Acted as Scrum Master, enhancing team communication and sprint outcomes.

**Teaching Assistant** *Aug 2020 - Jun 2025*  
Delft University of Technology *Delft, Netherlands*

Worked closely with teaching staff to organize courses, assist students during lab sessions, and provide feedback on assignments.

**Head TA for Computer Organisation (CO) & Computer Networks**

- Managed 30-40 TAs across multiple courses, making decisions on assignment design and course improvements.
- Developed exam questions, participated in evaluations, and created self-study materials for CO on logic circuits, I/O, caching, and pipelining.

**Head TA for Software Engineering Methods (SEM) & OOPP**

- Created Python scripts that ran weekly through the Gitlab pipeline to monitor student progress and improve consistency in the TA feedback.
- Resolved group conflicts and mitigated issues in task division, communication, and SCRUM practices.
- Transformed SEM into an assignment-focused course with materials on requirements engineering, teamwork, and sustainable software.

**TA for Project Courses**

- Supervised groups of 2-6 students for projects in software development, computer vision, and image processing.
- Guided students on scope management, feasibility, and client interactions, providing suggestions for project improvements and constructive feedback to address mistakes.

## PAPERS

**EV-Mask-RCNN: Instance Segmentation**    **in Event-based Videos**

- Applied deep learning techniques (Mask R-CNN) for instance segmentation on Dynamic Vision Sensor (DVS) data.
- Processed event-based inputs from the N-MNIST dataset into RGB-D images, and achieved promising results.

## EDUCATION

**Master of Computer Science** **TU Delft**  
**Delft, Netherlands** **2022-2025**

**Bachelor of Computer Science & Engineering** **TU Delft**  
**Delft, Netherlands** **2019-2022**

## PROJECTS

**Software Architect @ Thuisbeclone**

Designed and implemented a scalable microservices architecture using Domain-Driven Design for a food delivery application.

- Led stakeholder analysis, requirements engineering, and general team organization and planning.
- Integrated Kafka for asynchronous communication, improving fault tolerance and scalability.
- Addressed ethical considerations and conducted performance testing to optimize for high-demand.

**Plagiarism Detection System**

Developed a plagiarism detection system with Spring Boot and Thymeleaf, used design patterns for the integration of custom algorithms and data sources.

- Enabled asynchronous processing for efficient, scalable plagiarism checks.
- Enhanced review process with automatic/manual highlighting of suspicious content.
- Refined functionality and usability through user surveys and testing sessions.

**Release Engineer & Sentiment Analysis**

Sentiment analysis project of restaurant reviews through natural language processing toolkit.

- Deployed scalable microservices with Docker and Kubernetes, and GitHub Actions pipeline.
- Set-up Prometheus and Grafana to monitor metrics.
- Used Swagger to provide clear API documentation.

## ACHIEVEMENTS

- Qualified and participated to NWERC 2020
- Bronze medal at the national stage of the Romanian Computer Science Olympiad 2017
- Think Award at the Regional Stage of the First Tech Challenge Robotics Competition 2019

## LANGUAGES

- Romanian (Native)
- English (Native)