ANDERS BRAMS

Curriculum Vitae

SOFTWARE ENGINEER

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Full-stack ML/DevOps engineer

Forward-thinking and pragmatic software engineer currently living in Aalborg, works effectively in dynamic environments, and experienced in building robust and automated systems across the entire stack. Regardless of project and team, my ability to standardise and automate workflows has allowed my team and I to move forwards quicker and to focus on value-adding work.

Currently, my team and I are developing Emily - a development platform for AI and machine learning engineers that automates both ML- and DevOps for developers wanting to integrate AI in their systems. Emily is developed on top of Cilly, a CLI library that I personally wrote and maintain as open-source.

WORK EXPERIENCE

Full-stack software engineer

2020-... | Ambolt AI

At Ambolt, I have been active in primarily two separate teams developing **Helsboka** and **Emily**.

Helseboka
Helseboka is a hybrid-app (website and smartphone) for doctors and patients in Norway. During COVID-19, the userbase grew to two-thirds of the Norwegian population between 2020-2021. During this time, my team and I became closely familiar with what to do - and what not to do - in keeping a system resilient under extreme conditions.

I developed across the entire stack of the system, which primarily consisted of an Angular (Ionic) front-end, Java (Spring) microservices backend deployed to Kubernetes clusters, and MSSQL and Elasticsearch databases. Azure Pipelines were used for CI/CD which was automated against the version-control system.

Emily
First developed as an internal tool for automating machine-learning tasks, Emily has grown to a customer-facing product. Emily is a full development platform for scaffolding, developing, and deploying machine learning microservices in many different contexts, including bare-metal, Docker-based, and Kubernetes-based deployments.

Emily is built on top of Cilly - my own library for developing

EDUCATION

BSc. Software Engineering

2015 - 2018 | Aalborg University

Graduated with distinction.

MSc. Software Engineering

2018-2020 | Aalborg University

Graduated with distinction. Pre-specialization work was published in CIKM'2020 and is in active use at Aalborg and Hong Kong University.

SKILLS

Linux (Debian/Arch), Docker

.NET (ASP.NET), Java (Spring)

SQL (MSSQL, PostgreSQL)

Python (C++ interop)

HTML/CSS/TypeScript+JavaScript

Kubernetes (AKS)

Azure DevOps/GitHub Actions

Node.js-based CLI-tools. The Emily CLI is written in TypeScript and runs on Node.js. The Emily-system also contains a web-app front-end developed in React (Next.js). The backend consists of primarily Python-based microservices and PostgreSQL databases, and Elasticsearch databases for logging and statistics.

Security consultant
I have planned and conducted workshops surrounding system security and architecture in practice with focus on ASP.NET-based systems for smaller Aalborg-based companies.

The workshops included architectural dos and don'ts wrt. security, resiliency and scalability, different auth protocols including OAuth2 and OpenId Connect and the implementation of these in ASP.NET REST APIs, and automation of deployments to Azure Kubernetes Service clusters.

Freelance consultant
2018 - ... | Self-employed

Developed apps and websites for a small number of primarily Aalborg-based companies.

Shaping New Tomorrow
Developed a mobil app (iOS and Android) for helping the Shaping New Tomorrow in-store employees plan and complete warehouse management tasks. Through close cooperation with the end-user, the app directly lead to a task requiring two employees for ~2 hours daily being completed by a single employee in ~15 mintues at a significantly lower rate of error.

The app was developed in Flutter (Dart) against a Firebase NoSQL database.

Research assistant
2019 - 2020 | DAISY Research Group, Aalborg University

Helped the researchers at DAISY design, develop, and test deep-learning models for geo-spatial data analysis.

Hazardous Road Location Detection
Developed a large-scale neural network for detecting which segments of the Danish road network were particularly dangerous from a massive amount of Danish traffic data.

The model was built and evaluated using PyTorch and PostgreSQL/PostGIS.

Student Developer
2018 - 2019 | Logimatic

Helped the LOGIA team design and develop their warehouse management system LOGIA.

LOGIA
A large-scale WMS developed and maintained by Logimatic. The system was built .NET using WPF and C# against a PL/SQL (Oracle) database.

PUBLICATIONS

"MindReader: Recommendation over knowledge graph entities with explicit user ratings"
DOI: 10.1145/3340531.3412759

Published in CIKM '20: Proceedings of the 29th ACM International Conference on Information & Knowledge Management.

ACCOMPLISHMENTS

Two-time champion
Won the Oticons Audio Explorers Engineering Challenge two years in a row (2019 og 2020)

Chairman @ Google Developers Group
Currently sitting chairman at the Google Developers Group in Aalborg.

OPEN SOURCE

SVG Path Morphing
Developed a small front-end library called svg-path-morph for fast and smooth SVG animations.

The project is starred by ~650 developers on GitHub and is in the "Top-20 posts of all time" on Reddit's /r/webdev forum.

github.com/Minibrams/svg-path-morph

Cilly
Developed a Node.js library called cilly for easily building complex CLIs. The library is written in TypeScript and is in active use at Ambolt AI.

github.com/cilly-cli/cilly