Tor Gunnar Høst Houeland

United Kingdom

United Kingdom

EMPLOYMENT HISTORY

Google, working from home — *(2014 - present)*

Senior Software Engineer, from 2018

Software Engineer III, from 2016

Software Engineer II, from 2015

Technical Solutions Engineer II, from 2014

Driving Google Cloud reliability investments with data (2021 - present)

- Part of cross-functional team collaborating across Google Cloud (ongoing; details elided)

Public status dashboard system *(2019 - 2021)*

- Created new status dashboard infrastructure to inform customers when there are outages, replacing several previous solutions that relied on deprecated dependencies
- Used for [Google Cloud Status Dashboard](), [Google Workspace Status Dashboard](), [Google Ads Status Dashboard](), [Firebase Status Dashboard](), [Google Maps Platform Status Dashboard](), and [Merchant Center Status Dashboard]()
- Designed the overall system architecture, the backend API, the internal UI for editors, and the templating approach to show messages in 20+ languages
- Collaborated across multiple internal product areas (sub-organizations) to plan functionality and launch dashboards, and led a team of 5 other engineers across 2 sites to implement the solution

Incident response and management system *(2018 - 2020)*

- Tech lead for the frontend, defined frontend code architecture and best practices, and implemented the majority of the initial UI when the project first started
- Established team processes to empower individual contributors to take more ownership of their work and support growth
- Set up experiment system to help make data-driven decisions
- Refined UI to match the needs of production engineers, working together with UX interaction designers
- Ramped up UI engineering team from 2 engineers in London to 14 engineers across 3 sites
- Mentored one of the UI engineers to take over as new tech lead

Machine Learning Crash Course with Tensorflow APIs *(2016, 2018, 2021)*

- Instructor within Google for what is now a public [machine learning crash course]()

Compute Engine SRE *(2017)*

- "Mission Control" SRE rotation to learn about Google Production and SRE
- SRE oncall for [Google Cloud Compute Engine]()
- Worked on improving internal Compute Engine monitoring

Knowledge management system for Ads Sales *(2014 - 2017)*

- Rewrote search feature: increased quality score by 40%, reduced latency by 85%, and increased indexing speed by 3000%. Search improvements were a major contributor to customer satisfaction increasing from 32% to 85% during this period
- Contributed to complete redesign/reimplementation of the UI
- Created new reporting pipeline, and set up experiment system to help make data-driven decisions

Sales planning tools *(2015)*

- Tech lead for 2 internal tools for sales planning, mentored one of the other 2 engineers to take over as new tech lead
- We maintained both tools and migrated them away from deprecated dependencies

Department of Computer and Information Science at NTNU, Trondheim, Norway *(2013)*

- Assignment coordinator for "Machine Learning and Case-Based Reasoning" university course, tutoring and grading assignments

Falanx Microsystems (now: ARM Norway), Trondheim, Norway (2006)

- Wrote a new C preprocessor implementation for embedded systems, and contributed to an OpenGL ES shading language compiler for embedded systems

Stavanger University Hospital, Stavanger, Norway (2003, 2004)

- Worked as support for electronic patient journal system, developed customer-focused reporting, and contributed to database administration

EDUCATION

Norwegian University of Science and Technology, Trondheim, Norway — *PhD in Computer Science, Artificial Intelligence*

Doctoral thesis title: [Automated lazy metalearning in introspective reasoning systems](#)

Keywords: lazy learning, meta-level learning, ensembling, reinforcement learning

Norwegian University of Science and Technology, Trondheim, Norway — *Master of Science, Computer Science*

Master thesis title: [Reuse of Past Games for Move Generation in Computer Go](#)

Keywords: machine learning, case-based reasoning, UCT algorithm, Go board game

INTERESTS AND SKILLS

- Learning and intelligence
- Game theory and games
- Program generation and analysis
- Preferred programming languages: Haskell, TypeScript, Rust