

Technical Skills

Back-End Development

C++, Python, Node.js
SQL (PostgreSQL, MariaDB)
gRPC APIs, REST APIs

Front-End Development

TypeScript, Angular, React, SolidJS

ML Ops / Cloud Computing

TensorFlow and JAX Serving (GPU/TPU)
Google Cloud Platform (GCP)
Post-training Infrastructure

Languages

English (fluent)
Korean (mother tongue)
Japanese (bilingual)
Spanish (intermediate, B1)
German (basic, A2)
Finnish (intermediate, B1)
Rwandan (intermediate)

Work Experience

Google DeepMind, Senior Software Engineer

08. 2023 – Present | London, United Kingdom

Senior UX Engineer 11. 2022 – 08. 2023 | UX Engineer 01. 2021 – 11. 2022

- Led the integration of model serving into Gemini's human data collection platform, reducing failures in our team's model servers to near zero.
- Contributed to the development and maintenance of the full-stack platform for Gemini's human data collection using internal stacks in C++, Python, SQL and TypeScript; this platform has since evolved into the company's primary human data collection platform, supporting a large-scale data collection effort.¹
- Led the UX design and supported the front-end development of the Play Lab editor for agents simulation, allowing researchers to interactively build virtual 3D environments at speed with real-time feedback.²
- Led the design, development and deployment of a full-stack platform for molecule visualisation and analysis (Next.js, D3.js, MolStar, GCP – Bigtable, BigQuery, Cloud Functions), supporting the incubation of Isomorphic Labs' AI-driven drug discovery research using AlphaFold.

Fjord³, Creative Technologist

07. 2017 – 12. 2020 | Berlin, Germany

- Integrated technical solutions into service design projects, developing interactive user journey maps and insights dashboards for Volkswagen's mobility research.
- Developed and deployed high-fidelity prototypes using React, Node.js, PostgreSQL, MongoDB and Heroku to enhance user experience and validate design concepts with clients.
- Led several complex data visualisation projects using Three.js to present qualitative and quantitative data, enabling clients to gain actionable insights from user research.

Linja⁴, Interaction Designer & Developer

11. 2016 – 06. 2017 | Helsinki, Finland

- Engineered reusable templates for the internal dashboard platform of an aerospace and defence client, improving maintainability and reducing development time and ensured compatibility with legacy frameworks.

Aalto University, Web Designer & Web Developer – working student

09. 2015 – 11. 2016 | Helsinki, Finland

- Designed, developed, and maintained websites for Aalto University, including 4 departmental sites for the School of Arts, Design and Architecture and online resources for the university's library; these were the department's first websites to fully support mobile browsers.

Moto, Web Designer & Web Developer – freelance, full-time

01. 2015 – 07. 2015 | Seoul, South Korea

Junior Industrial Designer 01. 2010 – 08. 2010

- Spearheaded the development and launch of the company's first mobile-friendly website using responsive design principles and WordPress, improving the company's ability to reach and engage with customers on mobile platforms with maintainability for non-tech savvy industrial designers.

¹ Core contributor in Gemini publications: <https://arxiv.org/abs/2312.11805>, <https://arxiv.org/abs/2403.05530>

² The work was presented at NeurIPS 2022: <https://x.com/GoogleDeepMind/status/1597612658555248640>

³ Became a part of Accenture Song in 2022

⁴ Acquired by Vincit in October 2017

University of Rwanda⁵, Lecturer

10. 2012 – 01. 2015 | Muhanga & Kigali, Rwanda

- Delivered lectures in computer science (C/C++ programming) and design (product, 2D & 3D graphics and motion design) to undergraduate students.
- Designed typing practice software for Rwandan students and conducted successful pilot runs, introducing a new curriculum to enhance their typing proficiency and overall computer literacy.

About:Blank, Web Designer & Web Developer – working student

04. 2011 – 03. 2012 | Helsinki, Finland & Seoul, South Korea

- Designed and developed the company's multilingual e-commerce platform using OpenCart, including features for product catalog management, user accounts, and online ordering.
- Developed a custom payment gateway plugin for Korean transactions.

Daejeon Institute of Education Information, Instructor – working student

01. 2008 – 12. 2008 | Daejeon, South Korea

- Taught robotics programming fundamentals to lower secondary school students using a humanoid robotics kit, covering concepts in introductory C programming and microcontroller control.

Education

Aalto University, MA in Collaborative and Industrial Design

08. 2010 – 07. 2016⁶ | Helsinki, Finland

- Redesigned and implemented the school's blogging platform using WordPress multisite feature for my master's thesis⁷ project, providing well-branded and fully responsive templates with a much more improved user experience for students and faculties.

KAIST, BSc in Industrial Design

02. 2006 – 01. 2010 | Daejeon, South Korea

- Awarded full scholarship
- Student representative (2009), spearheaded planning of final year exhibition
- Final year exhibitions showcased at 100% Design Tokyo and Week & T Seoul (sponsored by SK Telecom⁸).

⁵ Part of mandatory military service in South Korea

⁶ Leave of absence: 07. 2012 – 08. 2015

⁷ <https://urn.fi/URN:NBN:fi:aalto-201606162374>

⁸ The biggest mobile network provider in South Korea