

Simon Lumikello



📍 Jyväskylä, Finland

🗣️ Russian (native), English (proficient), Finnish (basic)

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Master's degree in Information Systems and Technologies, 2008

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Profile

Software engineer with 15+ years of experience building Valmet IQ Machine Vision, a quality inspection system for the pulp, paper, board and tissue industries.

- **Tens** of languages, tools and technologies
- **Dozens** of software modules with hundreds of thousands of LOC
- **Hundreds** of installations worldwide, supported and extended with new features
- **Countless** features and several sub-products built from scratch

I started as a UI developer, then moved to full stack, and led UI and API development for the last decade. Most recently, as architect and lead developer, I replaced the product's legacy desktop UI with a modern web app built from scratch on React, OpenAPI and .NET, and took it from proof of concept to dozens of shipped systems. More on that in the timeline below.

I also set up and optimized development workflows, tooling and infrastructure, helped hire and onboard new developers, and worked closely with project engineers in the field. I've seen subcontracting from both sides: as a subcontractor for Metso early on, and later leading subcontracted developers for Valmet.

My main tech stack is TypeScript, React, OpenAPI and .NET, and in my hobby projects I use Next.js, Supabase, Flutter and Vercel. Over the years I've worked through several generations of web and desktop tech, from ActionScript in Macromedia Flash (the good old days), PHP and Java Swing to Electron, SignalR and Plotly.js, and built and released several Android apps.

I've been building software since long before AI coding tools, but I've recently switched to an AI-first workflow, using Kiro, Antigravity, Codex or Claude Code depending on the project. At Valmet I brought a coding agent into the team's development process, and in my own projects an idea now becomes a working prototype in a day and a polished app within a week, where it used to take weeks.

Expertise

Frontend TypeScript, React, Next.js, Material UI, TanStack Query, Zustand, React Router, Zod, Tailwind CSS, Electron, i18n

Data visualization Plotly.js, Recharts, MUI X Charts, Real-time and large datasets

Backend C#, .NET, ASP.NET Core, OpenAPI, openapi-generator, EF Core, Dapper, SignalR, MSSQL, T-SQL, Supabase

Design & architecture Software architecture, REST API design, Database schema design, UX design

Tooling & testing Git, Bun, Vite, Biome, Playwright, Cypress

CI/CD & infrastructure Jenkins, GitLab CI, TeamCity, Vercel, MAAS

Mobile Flutter, React Native, Android

AI Claude Code, Codex, Antigravity, Kiro, Agent workflows (rules, skills, hooks, MCP integration)

Team tools GitHub, Bitbucket, Jira, Confluence

Team & process Team leadership, Hiring and mentoring, Code reviews, Roadmapping and prioritization, Kanban, Process and workflow design, Stakeholder communication, Field support, Technical documentation

Earlier Java, PHP, Vue

Timeline

2012–2026

Valmet Automation, formerly Metso Automation

2024–2026 · Jyväskylä

Chief software design engineer *promotion*

Led team-wide workflows and tooling, hiring and mentoring, and brought AI into the development process.

- Designed the team's Jira setup (issue types, fields, workflows) and drove its rollout.
- Moved issue reporting from chat to Jira: trained project engineers on the workflow and why it pays off, and configured Rovo to raise ticket quality.
- Connected Kiro to Valmet's internal MCP servers, cutting Jira ticket handling time from hours to tens of minutes.
- Kept the tech stack current across several major versions of .NET and React.
- Migrated the UI's end-to-end tests from Cypress to Playwright.

New technologies: Kiro, Rovo, Playwright

2023–2024 · Jyväskylä

Senior software design engineer *promotion*

Technical owner of the product's UI, making decisions on feature design, implementation and roadmap.

- Took the UI into production, both as upgrades of existing systems and in new installations.
- Handled feedback from the field as the UI started shipping to customers, supporting project engineers and customers both remotely and on site.
- Automated user documentation as part of the build, from screenshots to localized PDF manuals.

2020–2023 · Jyväskylä

Software design engineer

Architect and lead developer of the product's new UI, managing the subcontracted developers on the project.

- Brought the new web app to feature parity with the legacy UI: for each feature, studied how it was used, decided what to keep, drop or improve and with which technology, then prioritized and built it.
- Took ownership of the team's CI/CD, first for the UI and later for the whole product.
- Improved the UI's Cypress end-to-end test setup and extended its coverage.

New technologies: Plotly.js, Electron, Material UI, SQLite, Bitbucket, Git, Linux, Cypress

2017–2019 · Tampere

Software design engineer

Moved to Tampere to focus on research: investigated new technologies, pitched feature improvements and built prototypes.

- In late 2018, proposed rebuilding the product's legacy desktop UI as a web app, ran the technology evaluation and designed its full-stack architecture: React and TypeScript frontend, .NET backend, cleanly separated from the existing system it integrates with.
- Designed it for the long run from day one: a contract-first API with OpenAPI and code generation, backward compatibility with installations of different ages, CI, an installer and automated upgrades.
- Set priorities and documented the architecture, aligning engineers and stakeholders on design decisions.

New technologies: Node.js, React, TypeScript, OpenAPI/Swagger, Vue, Semantic UI, ASP.NET Core, npm, yarn, Webpack, Jest, Docker

2012–2017 · Jyväskylä

Software design engineer

Continued development of the Metso PQV user interface after being hired directly by Metso Automation in Jyväskylä.

- Migrated the UI from web pages and Java applets to a self-contained Java desktop application.
- Removed obsolete components and set up build tooling, code signing and CI for the new application.
- Supported deployed installations with bug fixes, new features and performance improvements.

Technologies: Java, .NET, C#, PHP, JavaScript, MSSQL, SVN, Jira, Confluence, Jenkins

2010–2012

Petrozavodsk State University IT park

2010–2012 · Petrozavodsk

Software developer

As a subcontractor for Metso Automation, maintained and improved the user interface of Metso PQV (Process and Quality Vision), an integrated web monitoring and quality inspection system.

- One of two remote developers, reporting directly to Metso's project manager and visiting Finland regularly.

Technologies: Java, C#, PHP, JavaScript, MSSQL, SVN

2005–2010

Freelance

2005–2010 · Petrozavodsk

Freelance web developer

Worked as a freelance web developer and graphic designer. Projects ranged from simple static websites to large portals with an established user base.

- Delivered about 20 client projects: most on my own, end to end, and a few longer ones as part of a team.

Technologies: HTML, CSS, PHP, JavaScript, MySQL

Side projects

Snackpot · snackpot.dev

Can't decide what to cook? Give it a spin!

2026 · TypeScript, Next.js, Vercel

Dynasty Atlas · atlas.lumikello.net

Interactive atlas of European royal dynasties

2026 · TypeScript, React, Vercel

Onshape Knurl · github.com/simon-lumikello/onshape-knurl

Knurl custom feature for Onshape

2026 · TypeScript, Onshape FeatureScript

Tag maker · nimikyltti.lumikello.net

Design 3D-printable tags for doors and mailboxes

2026 · TypeScript, Three.js, Vercel

Family dashboard · calendar.lumikello.net

Kiosk-mode app for managing family errands, built on Google Calendar

2026 · TypeScript, React, Vercel

Weather clock · weather.lumikello.net

Ambient screen with clock, weather forecast and interactive weather map

2026 · TypeScript, Vercel

Weather map · map.lumikello.net

Weather map with pretty cloud visualization and a few hidden tricks

2026 · TypeScript, Vercel

lumikello.net · lumikello.net

Experimental landing page for my personal website

2026 · TypeScript, Vercel

Jaksa! Jaksa! · jaksajaksa.com

No-nonsense gym workout planner and tracker

2026 · TypeScript, Next.js, Supabase, Vercel

loma loma! for Android · [Google Play](https://play.google.com/store/apps/details?id=com.loma.loma)

The loma loma! flight finder Android app

2026 · Flutter, Android

loma loma! · loma.one

Cheap flight finder and route explorer

2025 · Flutter, Vercel