Ilkka Lappeteläinen

Product Engineer · TypeScript, React, Node.js

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SUMMARY

Full-stack engineer who has shipped production web and mobile products in TypeScript, React and Node.js since 2021. My consulting work includes client platforms, mobile apps and production infrastructure. Working alone with coding agents, I built Woosh, a Chrome extension and web app for live streamers, and DependaPro, AI-assisted dependency risk reports that are now a paid service. At Vertics I work on Vinssi, hosting that AI coding agents deploy to directly, and maintain a public-transport data pipeline that handles about 1.2 million messages a day. I build my recent projects by directing Claude Code and Codex agents in parallel, and manage the work through a project board I built for handing tasks to agents and reviewing what comes back.

EXPERIENCE

Software Developer — Vertics Oy 2023 – Present

Software consultancy, Espoo. In-house products and client platforms.

- **Vinssi** (vinssi.ai): European app hosting for people who build with AI assistants. I'm its main developer and have worked on it since the first GenAI prototype. Users publish straight from Claude, ChatGPT, Codex or Cursor and get a shareable URL in minutes, at a fixed monthly price.
- **Waltti Silmä**, for TVV LMJ, the company behind Finland's Waltti public-transport tickets: I maintain the open-source automatic passenger-counting pipeline. It processes about **1.2 million** vehicle-position snapshots and passenger counts a day. Node.js, TypeScript, Apache Pulsar, Kubernetes, Terraform, GitHub Actions.
- **GCP to UpCloud migration**: built upcloud-tools, a terminal app that sets up a project's UpCloud Kubernetes cluster, managed database, CI/CD pipelines, encrypted secrets and Prometheus/Loki/Grafana monitoring. Used it to move customer systems from Google Cloud to UpCloud. TypeScript, Bun, Pulumi, Kubernetes.
- **Client platforms**: full-stack builds for clients including Gearhead, Serwes and Matkatoimisto Saarikoski, mostly on the T3 stack (TypeScript, Next.js, tRPC, Tailwind, Prisma) with Google Cloud integrations and i18n.

Software Developer — Webso 2021 – 2023

Software agency. Full-stack client projects.

- **Onerva**: cut server load **24×** by reworking how the client called the API. Built a React Native app for iOS and Android, including a GDPR-compliant chat. Rebuilt the admin UI so non-technical staff could manage users, and wrote CLI scripts that automated manual admin and testing tasks. React, React Native, Node.js, Docker, GCP.
- **Multimentor**: built a questionnaire and form builder with formula fields that automate financial-statement calculations. Added Jest unit and integration tests, a GitHub Actions CI/CD pipeline and a Docker development environment. Vue.js, TypeScript, AWS.

PROJECTS

- **Woosh** (woosh.gg): a product I designed and built end to end, working alone with coding agents; launch is coming up. Live streamers click a Twitch, Kick or YouTube Live chat message to show it on stream in OBS. It consists of a Chrome extension, a hosted studio and overlay, real-time delivery, Twitch sign-in and Stripe subscriptions. The overlay has six themes and four motion styles. TypeScript, Next.js, Prisma, Ably, Clerk, Stripe.
- **DependaPro**: dependency and infrastructure risk reports for real codebases. I built it end to end, starting as my master's thesis, and it is now a paid service. Each run takes a deterministic inventory (vulnerability scans, container images, runtime end-of-life). A read-only Claude Code or Codex session then judges real-world risk, and every cited file and line is checked before it produces a plain-language customer report and a developer report. Automated upgrades are next. TypeScript, Node.js, Claude Code, Codex.

- **Valkotaulu**: the project board I run my own work on, alongside Codex and Claude agents. Its Today view shows decisions waiting on me, work ready to delegate and blockers. When an agent needs an approval or an answer, or ends a turn without a valid result, the task moves to a Needs human queue. Agents update tasks through an authenticated API, and keyboard shortcuts let me review and start tasks in their own T3 Code agent threads. Next.js, tRPC, Drizzle, PostgreSQL.
- **Keeper**: a Rust CLI for project-aware storage cleanup. It measures Git checkouts, build output, toolchains, caches and agent state, reports process activity, and removes selected generated directories only after explicit approval.
- **Eppu Normaali** (github.com/pnupu/eppu-normaali): a Discord music bot with a web jukebox. It plays YouTube, SoundCloud and Spotify links and supports saved mixed-source playlists and queue reordering. It runs on a Raspberry Pi and is in regular use. TypeScript, Bun.
- **Linux kernel fix, CVE-2026-98850** (cve.org): working with coding agents, I found and fixed an integer overflow in packet-socket TX rings, present since 2009 (Linux 2.6.31). It let a CAP_NET_RAW holder trigger a kernel BUG, panicking hosts set to panic on oops. I reproduced it on arm64 and sent the three-line patch upstream. It was reviewed by Willem de Bruijn (Google), merged upstream and backported to the 6.6, 6.12, 6.18 and 7.2 stable series.

HACKATHONS

Junction, one of Europe's largest hackathons: 2nd place in the Quantum Hack 2026 final and in its QMill challenge, challenge winner in 2020 and 2022, top three in the Wolt challenge in 2025, and a finalist in 2023.

SKILLS

Frontend: TypeScript, React, Next.js, React Native, Vue.js, Tailwind CSS, tRPC, Figma

Backend & data: Node.js, Express, Python, Rust, FastAPI, Django, Prisma, PostgreSQL, MongoDB, MySQL, Apache Pulsar

Infrastructure: Docker, Kubernetes, Terraform, GitHub Actions, Google Cloud, AWS, Azure, Vercel

AI tooling: Claude Code, Codex, MCP servers, LLM APIs, embeddings

Testing: Jest, Cypress, Playwright

EDUCATION & OTHER

M.Sc. (Tech.), Information Networks — Aalto University 2020 – 2025

- Certified ScrumMaster (CSM), Scrum Alliance
- Mankkaan Eräsudet scouts, Espoo: head of the scout group (2021 – 2022) and leader of a children's group (2013 – 2022)
- Languages: Finnish (native), English (fluent)