

Mikk Õun

mikk@foobar.ee
Tallinn, Estonia, [foobar.ee](mailto:mikk@foobar.ee)
(+372) 566 69291

Full-stack software developer with over 10 years of experience designing and building complete software solutions. Experienced in developing scalable REST APIs, creating intuitive user experiences, and delivering reliable systems from concept to production.

Full stack developer, Independent Contractor | Tallinn, Estonia

01/10/2024 - 2026

Developed a **warehouse management system** for laboratory inventory tracking, automated alerts, and ordering workflows. [Angular, Node.js, MongoDB, Docker, Websockets, RestAPI]

Built a **warehouse scale station** for real-time chemical usage tracking with QR code printing and scanning integration. [Python, Websockets, MongoDB, hardware integrations, RestAPI]

Developed a **mobile warehouse application** with QR scanning and inventory operations using PWA technologies. [Angular, PWA, Angular service worker, RestAPI]

Founding Full stack developer, Elsavie OÜ | Tallinn, Estonia

01/07/2021 - 26/04/2024

Built and owned the company's entire technology stack from the ground up, covering product architecture, backend services, frontend applications, databases, cloud infrastructure, DevOps, data pipelines, and internal tools.

Implemented and optimized **bioinformatics data pipelines** for microbiome analysis and processing. [Python, R, docker, linux]

Developed and maintained an **e-commerce website** with multilingual support, blog/news system, and payment integration. [Angular, firebase, Stripe, SSR, i18n]

Designed a **scalable PDF generation framework** capable of producing complex dynamic documents in bulk, automatic layout sizing. [Angular, Node.js, mongoDB]

Optimized **cloud-based report generation infrastructure** for on-demand consumer reports. [Firebase, google cloud functions, puppeteer]

Developed a **client portal** for questionnaires and microbiome result delivery with multilingual support. [Angular, firebase, i18n]

Software developer / Full stack developer, AS TFTAK | Tallinn, Estonia

30/11/2017 - 01/07/2021

Built **metagenomics sample management and tracking systems** with unique barcode generation, printing, and scanning workflows. [Angular, Python, Docker, Node.js, MongoDB, Raspberry Pi, hardware integrations, RestAPI]

Developed **dynamic PDF reporting solutions** with automated data visualizations for microbiome analysis results. [Angular, docker, Python, node.js, puppeteer, mongoDB]

Created **customer-facing portals** for questionnaire management and microbiome result delivery using serverless cloud infrastructure. [Angular, node.js, AWS lambda, AWS dynamo, AWS S3]

Developed **visualization and analytics environment** for large-scale cell model development. [Angular, Python, docker, mongoDB, Websockets, RestAPI]

Automated laboratory data processing and analytics workflows, including machine output parsing and visualization scripts. [Python, matplotlib, pandas, excel, RestAPI]

Scientist, Tervise Arengu Instituut | Tallinn, Estonia

06/03/2017 - 30/11/2017

Research of gut microbiota and food. [Excel, Python, mongoDB]

Scientist, AS TFTAK | Tallinn, Estonia

01/02/2013 - 05/03/2017

Fermentation, E-coli acetate metabolism [Bioreactors and beakers]

Data analysts, data visualization [Excel, Python, matplotlib, pandas, numpy Perl]

Web development Mostly static website with CMS for news and blog posts. [PHP, HTML, CSS, jQuery]

Built **analytics software** for data merging, interpolation, and visualization of laboratory datasets. [Angular.js, Python]

EDUCATION

Chemistry and Biotechnology - not yet completed, Tallinn University of Technology | Tallinn, Estonia

01/09/2008 - 31/07/2013

Biotechnology, cultivation and fermentation. Bioinformatics and data visualization. Programming and software development.

Field(s) of study: Biochemistry , Biology , Chemistry , Software and applications development and analysis | Website: <https://taltech.ee/>

HOBBIES AND INTERESTS

Computer / server hardware

Building custom PCs and servers - a hands-on passion spanning over 20 years, from enthusiast workstations to homelab hardware. I have been experimenting and using linux since middle school.

Self-Hosted Home Infrastructure (Personal Project)

Virtualization & Operating Systems: Proxmox, Proxmox Cluster, LXC, KVM/QEMU, NixOS, Docker

Designed and maintained Linux-based virtualization environments, including a 3-GPU KVM passthrough system that transformed a single physical machine into four independent virtualized workstations.

Networking & Self-Hosting: MikroTik, reverse proxies, VPNs, DNS, TLS, Pangolin

Configured secure networking and self-hosted infrastructure with remote access, TLS encryption, VPN connectivity, and reverse proxy routing for externally accessible services.

Storage & Data Reliability: TrueNAS, RAID

Built and maintained reliable storage systems focused on redundancy, data integrity, backup, and high availability.

Automation & Smart Systems: Home Assistant, Cron

Developed automation workflows and monitoring solutions for infrastructure and smart home environments.

Beekeeping

PUBLICATIONS

[Coordinated activation of PTA-ACS and TCA cycles strongly reduces overflow metabolism of acetate in Escherichia coli](#)

Karl Peebo 1 , Kaspar Valgepea, Ranno Nahku, Gethe Riis, Mikk Õun, Kaarel Adamberg, Raivo Vilu (2014)

SKILLS

Programming

Angular, Node.js, Python, TypeScript, JavaScript, bash, PHP, RxJs, React, Vue.js, Next.js, Kotlin

Databases

MongoDB, DynamoDB, Firestore, MySQL, PostgreSQL, SQLite

DevOps and Infrastructure

Linux, Docker, Docker compose, Proxmox, bash, LXC, Qemu/KVM, passthrough, RAID, TrueNAS, Nginx, GitHub Actions, Apache

Cloud

AWS lambda, AWS dynamo, AWS S3, Google cloud functions, Firebase, Azure, Stripe

Hardware

Raspberry Pi, Arduino, Shelly, Mikrotik, Cisco, Ubiquiti UniFi, Brother printers, QR/Barcode scanners, scales

Other

REST API, Websockets, SSR, i18n, cron, Python Pandas, numpy, matplotlib, Flask, Tornado, GIT

AI / LLM

Ollama, LM Studio, Claude code, Github Copilot

LANGUAGES

Estonian: Mother tongue

English : C2

German : B1