

# Niko Lausto

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## PROFILE

I am genuinely passionate about technology and problem-solving. I am a good fit for your company because of my passion for technology. My favorite thing about coding is finding out many ways to solve a problem and always improving with every line of code.

## EDUCATION

### Lappeenranta-Lahden teknillinen yliopisto, Lahti

Graduating in 2027

- BSc in Software and Systems Engineering, 3.81
- Relevant coursework
  - Network analysis using Wireshark
  - Use of APIs
  - Telegram assistant bots
  - Automatic plate recognition system with custom CNNs
  - Java database system for saving and searching music data

## PROJECTS

### Custom network protocol

.NET and Computer Networking | 2025

- Designed and implemented a custom lightweight application-layer network protocol to use for real-time messaging
- Developed a command line .NET server that handles asynchronous client connections, using socket programming principles.

### Wi-fi sniffer

Computer networking and IoT | 2025

- Built an ESP-32 based network sniffer that can read raw data packets and track MAC addresses and signal strengths.
- Created a system design for multiple microcontrollers feeding data into a centralized Raspberry Pi
- Explored solutions for problems related to e.g. MAC-address randomization

### Automatic licence plate recognition system

Machine learning | 2025

- Developed a machine learning OCR project that takes in raw images and detects license plates and reads them at more than 85% correctness rate
- Developed a custom convolutional neural network and trained it on license character dataset, applying different augmentation to match real world circumstances

### Junction hackathon 2025 project

System design | 2025

- The project aimed to help developer security teams to compile and display security related information on the software used by the company developers with an accept/reject mechanism
- My role was to lead backend development and design the system on the Tauri framework. Developed the core functionality, lightweight SQLite database, API functionality and a cache for avoiding repeated API calls

### JDBC efficiency tool

Database efficiency | 2024

- Built a Java JDBC based tool that manages a pool of preloaded database connections efficiently
- Forms, manages and reuses database connections on a borrow/return mechanism, reducing the load of the database functionality

### Diffie-Hellman implementation

Cryptography | 2025

- Implemented a utility class for Diffie-Hellman cryptography using modular operations

### Interactive music database

Databases, SQL | 2024

- Worked with a group to develop an interactive music database

- Interactive database GUI and backend utilizing my custom database connection pool manager tool

## SKILLS

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<b>Programming languages:</b>	Java, C#, python, SQL, JavaScript, basics in C/Rust
<b>Frameworks and libraries:</b>	.NET, Next.js, Tailwind CSS, TensorFlow, OpenCV
<b>Tools &amp; platforms:</b>	Git, Linux (Arch, Debian), PostgreSQL, SQLite, JDBC, ESP-32
<b>Languages</b>	Finnish (native), English (C2), German (A1), Russian (A2), Chinese (A2)