Niko Lausto

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EDUCATION

Lappeenranta-Lahti University of Technology, Lahti   **Graduating 2027**

- *BSc in Software and Systems Engineering, 3.74*
- Relevant coursework
    - *Network analysis using Wireshark*
    - Java database system for saving and searching music data

PROJECTS

Wi-fi sniffer   *IoT and Computer Networking | 2025*

- Built ESP-32 network sniffer to capture and analyze 802.11 probe requests for traffic analysis.
- Created a system design for multiple microcontrollers that can capture and send network packet data to a central host. Microcontrollers are configurable with Kconfig, using task scheduling with freeRTOS
- Researched solutions for problems related to to MAC-address randomization

Database connection pool manager   *JDBC efficiency| 2025*

- Improved the efficiency of managing a PostgreSQL database by implementing a connection pool manager in Java using JDBC

- Removed application overhead by building a borrow/return mechanism of pre-established connections

Custom network protocol   *.NET and Computer Networking | 2025*

- Designed and implemented a custom lightweight application-layer network protocol that can be used for client messaging

- Developed a client-server system that provides end-to-end messaging with clients using asynchronous threads, using socket programming principles

EXPERIENCE

Junction Hackathon 2024, Helsinki   **Nov 2024**

Developer

- Responsible for developing application logic using Next.js
- Provided a working prototype under extreme time pressure, collaborating in a team of five engineers

SKILLS

Programming languages:	Java, C#, python, SQL, C, JavaScript
Frameworks and libraries:	.NET, React, Next.js, Bootstrap, Tailwind CSS, OpenCV
Tools & platforms:	Git, Windows, Linux, PostgreSQL, JDBC, ESP-32, Raspberry pi
Languages	Finnish (native), English (C2), German (A1), Russian (A2), Chinese (A2)