JINGJING YANG

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https://jingjingyang0803.github.io/CV/

TECH STACK

- C/C++, Java, Python, JavaScript, SQL
- React, Node.js, Flutter, REST API
- Git, Docker, Shell
- Data Analysis & Visualization, Machine Learning
- Embedded Linux, Bare-metal Programming

SOFT SKILLS

- Analytical Thinking
- Problem Solving
- Continuous Learning
- Team Collaboration
- Time Management
- Resilience & Adaptability

EDUCATION

AUG 2025 – PRESENT

TAMPERE UNIVERSITY

- Master, Embedded Systems
- Computing Sciences and Electrical Engineering

AUG 2021 – MAY 2025

TAMPERE UNIVERSITY OF APPLIED SCIENCES (TAMK)

- Bachelor, Software Engineering
- GPA: 4.88 / 5.0

LANGUAGES

- Chinese: Native
- English: Fluent
- Finnish: Basic, actively improving
- Japanese: Basic

PROFILE SUMMARY

As a Software Engineering graduate and current Master's student in Embedded Systems, I bring strong software development skills together with growing hands-on experience in hardware and embedded technologies. I am proficient in C, Python, Java, React, and Dart, and have applied these skills across real-world projects ranging from mobile applications to IoT devices and smart hardware prototypes.

I focus on AI, intelligent systems, and automation, with the goal of advancing innovations in healthcare, sustainable technology, and modern software development.

PROJECT EXPERIENCE

Embedded Systems Mini Projects 2025 Autumn

UART/I2C/SPI, PCB, Embedded Linux, OpenMP/OpenCL

- Built a bare-metal C Space Shooter game on a Zynq SoC with direct LED-matrix control.
- Developed and simulated AVR firmware in C using Proteus with low-level peripheral control.
- Explored CPU/GPU parallelization techniques for satellite motion simulation.
- Implemented a Linux kernel driver and evaluated real-time performance using the RT_PREEMPT patch.

Non-invasive Blood Glucose Monitoring System 2025 Spring

Embedded C, IR LEDs, Photodiode, ADC, Signal Processing

- Designed a user-centric application for efficient task management and insightful time allocation analysis.
- Used JSON Server to simulate backend functionality for seamless testing.

3D Printer Management System 2024 Spring

Flask, React, Cloud Integration, Raspberry Pi

- Designed and implemented a multi-wavelength infrared sensing system combined with photodiode signal acquisition to explore non-invasive glucose monitoring.
- Performed data preprocessing, noise filtering, and absorption analysis using Python to study glucose concentration correlations.

Lego Robot Car Project 2023 Spring

IoT protocol, C++, MQTT, rest-API, Arduino, ESP8266, sensors

- Designed and implemented a robot car with autonomous movement and obstacle detection capabilities.
- Implemented real-time control and data communication using the MQTT protocol.