Jargalsaikhan Artag

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Summary

Experienced Embedded System Engineer and Quantum Computing Researcher with a robust background in developing firmware and hardware for embedded systems, focusing on IoT and robotics on RTOS. Expert in programming with Python, C, and C++, and skilled in PCB design using Altium. Actively pursuing a postgraduate degree in Quantum Computing, with a research focus on Quantum computing and optimization. Committed to leveraging innovative technologies to solve complex real-world challenges.

Education

Tokyo University of Agriculture and Technology | Koganei, Tokyo
Research student, Quantum computing | 03/2025

- Engaging in Quantum Computing research, specializing in Quantum Annealing.
- Presented research findings at IEEE Quantum Computing and Engineering 2023 conference.

Tokyo University of Agriculture and Technology | Koganei, Tokyo
Bachelor's degree, Electric engineer and computer science | 03/2023

- Conducted research on Drone Control System using Quantum Annealing.
- Presented research at The Japan Society of Applied Physics (JSAP).
- Enhanced usage of Quantum Annealing hardware through Parallel Quantum Annealing.

National Institute of Technology, Ishikawa college | Tsubata, Ishikawa
Associate's degree, Electrical and Electronics Engineering | 03/2021

- Graduated with 4.0 GPA.
- Research theme on PV optimization using plasmonic response.
- Presented research at 第 26 回高専シンポジウムオンライン (26th National Institute of Technology Symposium Online).

Experience

KSJ Co.,Ltd | Nakano, Tokyo
Embedded System Engineer | 04/2023 - Present

- Designed and optimized PCBs for various electronic devices, significantly reducing production costs and size.
- Developed FPGA design for Ethernet for Control Automation Technology and Parallel Interface for high speed communication protocol
- Optimized code for memory and performance constraints in embedded systems
- Developed automated unit and integration tests to ensure software reliability and robustness

KSJ Co.,Ltd | Nakano, Tokyo
Embedded Engineer (Part-time) | 08/2021 - 03/2023

- Developed and implemented firmware and hardware solutions for advanced IoT devices and robotic systems
- Developed code for interfacing with external hardware, including sensors, actuators, and displays
- Developed real-time operating system (RTOS) applications to manage system resources and maximize system performance
- Created low-level drivers for various peripherals, including I2C, SPI, UART, and USB

LITALICO Inc. | Setagaya, Tokyo
Mentor Teacher (part time) | 04/2021 - 10/2021

- Conducted robotics workshops for children, focusing on building and programming using LEGO Mindstorms and Spike Prime, fostering early STEM education.

Skills

Embedded Systems, Quantum Optimization, Software Development, Algorithms, Research, Embedded Software, Git, Python, C, RTOS Development, Communication protocols, Electric Schematics, Debug

Languages

Mongolian, English, Japanese

Publications

Parallel Quantum Annealing: A Novel Approach to Solving Multiple NP-Hard Problems Concurrently, IEEE

Nov, 2023