Krit Surintraboon

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Education

Tohoku University (Oct. 2021~)
- International Mechanical and Aerospace Engineering Course, Computer Architecture Laboratory
- President Fellowship Scholarship, Heiwa Nakajima Scholarship (Apr 2023~Mar 2024)
- GPA (7 semester): 3.66/4, 2.98/3*

Miina Härma Gümnaasium IB program (Exchange year in Estonia 2018~2019)

Engineering Science Classroom (Darunshikkhalai) (2017 ~ 2021)
- GPA: 3.92/4

Skills

Python (Proficient) • C (Intermediate) • Fortran (Novice) • Octave (Novice) • JavaScript (Novice) • SolidWorks (Proficient) • English (IELTS 8.0) • Japanese (JLPT N3)

Relevant Courses

Control Engineering • Robotics • Fundamental of Information Science • Computational Mechanics • Computer Architecture • Natural Language Processing

Research Experience

Collaborative research with NEC Corporation on computer systems focusing on quantum annealing machines (Laboratory Assistant, May 2024~)
- Research on optimizing constraint reduction among physical qubits in the LHZ architecture through simulated annealing.

Optimization of Wireless Power Transmission Model (2020)
- Optimizing the WPT system through simulation of magnetic field behavior in different coil types and modeling a small WPT to study the relation between resonant frequency, transferring range and transferring efficiency.

Learning Project

Implementing the rotary embedding in the transformer architecture
- Substituting the absolute positional embedding with rotary embedding mechanisms by applying rotations to query and key vectors. The model is used to perform machine translation tasks.

Object deformation simulation
- Using Python and finite elements method to simulate the deformation of a 2-dimension square-shaped object with a square-shaped hole. The object is fixed at one corner, and a tensile force is applied at the opposite corner.

Robot arm design
- Using SolidWorks software to model robot arm parts and assemble them.

Other Activities

JIGE Internship Business Competition Top 3 – Kansai University (2024)
- Collaborated with team members to develop a market expansion plan for vegan leather company to Europe. This includes market research, entry strategy, risk mitigation, and poster presentation

University Bluegrass Music Circle (2023)
- Joined a country music club, actively engaging to build friendships with Japanese members.

Volunteering at School in Nakhon Pathom Province, Thailand (2019)