SUJONG LEE

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EDUCATION

Nanyang Technological University (NTU), Singapore *Aug 2020 – May 2026*
B.Eng. in Electrical and Electronics Engineering (Minor in Mathematics)
GPA: 4.60/5.0 (Highest Distinction)
2 years leave of absence for national duty (2022-2024)

RESEARCH EXPERIENCE

Undergraduate Research Intern *Jan 2025 - May 2025*
Supervisors: Wen, Bihan ROSE Lab@NTU, Singapore

· Research Topic: Generative AI empowered synthetic data/image generation

AI Research Engineer Intern *Mar 2024 - Jun 2024*
Paradot (Carat), Korea

· Migrated existing T2I image generation service from external API to SDXL with optimization of parameter and inference
· Launched a new service on diffusion-based I2I hairstyle transfer

Sergeant *Sep 2022 - Mar 2024*
SEC Research Center, Korea

· Compulsory military service in Republic of Korea Army after leave of absence
· Developed and modified an internal program for military use using Python

Undergraduate Research Intern *Mar 2022 - Jun 2022*
Supervisors: Taehyoung (Tony), Kim NTU, Singapore

· Research Topic: Design and Analysis of Neural Network
· Investigated development of foundational CNN models such as LeNet and ResNet
· Explored significance of different parameters of CNN in basic classification task

Undergraduate Research Experience on Campus (URECA) *Sep 2021 - Jun 2022*
Supervisors: Donguk, Nam NTU, Singapore

· Research Topic: Strain-engineered quantum device towards integrated quantum photonic chips
· Organized comparative analysis on PLE spectrum of various semiconductors for photonic waveguide
· FDTD simulational analysis using Ansys Lumerical software

ACHIEVEMENTS

Executive Member, NTU Korean Student Association *Jan 2021 - Jun 2022*
Private AI Bootcamp, Seoul National University *Jun 2022*
NTU President Research Scholar *Jun 2022*

SKILLS/HOBBIES

Programming Languages	Python, C++, Linux, Shell, LaTeX
Machine Learning Tools	PyTorch, Pandas, Numpy, Diffusers, Wandb
Language	Korean, English, Japanese, Spanish
Hobbies	Chess, Football, Competitive Programming

RESEARCH INTERESTS

My research interests broadly lie in applied mathematics for machine learning. I am specifically interested in mathematical understanding and efficiency of neural network and generative model. Recently, I am studying diffusion model, flow model and their variations.

My ultimate goal is consistent supply of completely personalized content of arbitrary modality using generative AI based on comprehensive understanding of neural network.