Dongkon(DK) Lee

+1-201-912-4248 | dl2635@princeton.edu | https://decaylee13.github.io/

EDUCATION

Princeton University, Princeton NJ, USA *Expected Graduation: 06/2027*
 B.S.E Candidate; (E.C.E) Electrical and Computer Engineering, Minors: Computer Science & Neuroscience
 Relevant Coursework: *(COS 324) Introduction to Machine learning, (COS 226) Data Structures in Java, (ECE 206)*
 Contemporary Logic Design, (COS 226) COS 226: Algorithms and Data Structures
Primoris Academy, Westwood, NJ, USA *09/2019 - 06/2023*
 GPA: *3.97/4.0 Unweighted (USA)*

RESEARCH EXPERIENCE

Machine Learning Research Intern | Flywire at Seung Lab **|** Princeton University, Princeton, NJ, USA *11/2024 - present*
 Working with Flywire, a groundbreaking neuroscience project mapping the Drosophila brain, under Dr. Sebastian Seung.
 Engineering a Reinforcement Learning agent to interface with Flywire's UI and make autonomous merge/split decisions for
 neuronal segments based on geometric properties of connectomes in the Drosophila brain.
Computational Neuroscience Research Intern | Bringmann Lab at BIOTEC **|** Dresden, Germany *06/2024 - 08/2024*
 Engineered a backend pipeline for analyzing the RIS neuron, a sleep-regulating neuron discovered by the Bringmann Lab in
 C.elegans, under the guidance of Dr. Inka Busack. Developed data extraction and segmentation algorithms using
 scikit-image, numpy, pandas, and Napari, achieving 97% optimization in microscopic neural imaging analysis.

SOFTWARE AND HARDWARE PROJECTS

PuNC *10/2024-12/2024*
 Built and implemented a 16-bit processor (PUnC) in Verilog for FPGA deployment, utilizing the LC3
 instruction set. Designed and implemented synthesizable datapath and control unit including ALU, register file, memory
 interface, and program counter on Xilinx Artix-7 FPGA.
MNIST Digit Classification *09/2024-11/2024*
 Implemented a Convolutional Neural Network (CNN) with two convolutional layers, max pooling, and three fully
 connected layers for MNIST digit classification using PyTorch and compared performance against baseline fully connected
 networks". Achieved 97% test accuracy through optimization of network architecture.

ENTREPRENEURIAL STARTUPS

CEO & Co-Founder | UBound **|** Leonia, NJ**,** USA *04/2024 - present*
 Co-founded and leading development of a web-based college consulting platform that connects high school students with
 undergraduate mentors from top universities. Architecting the full-stack solution using NextUI React Framework, Tailwind
 CSS, MongoDB, and Google Firebase for June 2025 release.
CEO & Co-Founder | Traverse[cs] **|** Westwood, NJ**,** USA *10/2022 - 06/2023*
 Co-founded an educational startup, fostering engagement with over 100 students across 10 countries, broadening their
 exposure to diverse programming concepts with sponsorship packages from industry leaders including AoPS, Wolfram
 Alpha, and Repl.it and established partnerships with Andover Computing Open, CP Initiative, Teamscode

EXTRACURRICULAR ACTIVITIES

Embedded systems Engineer | Princeton Racing Electric **|** Princeton University, Princeton, NJ, USA *08/2024 - present*
 Embedded systems engineer focusing on PRE's MK III race car's onboard protoboards. Modeled and designed on onboard
 circuit and pcb design using Altium, as well as using (CAD) NX to design the housing for the pcb.
Principal Clarinetist | Princeton University Orchestra | Princeton University, Princeton, NJ, USA *09/2023 - present*
 Lead the Clarinet section in weekly 10-hour rehearsals, culminating in four annual recitals
Vice President | (SASE) Society of Asian Scientists and Engineers | Princeton, NJ, USA *07/2024 - present*
 Vice President of Princeton's first Society of Asian Scientist and Engineers chapter, encouraging Asian-American students
 that are pursuing STEM fields to network at National SASE Conference
Front-End Web Developer | Hack4Impact **|** Princeton University, Princeton, NJ, USA *09/2023 - present*
 Front-end web developer for a new web-app to connect high school students to local volunteering opportunities to create a
 positive social impact partnered with 401(c) non profit organization GoGiver.

SKILLS

 Programming | Java, Python, React, NextJS, JavaScript, NodeJS, HTML, CSS, Tailwind, Bootstrap, NextUI, MongoDB
 Languages | English (Native), Korean (Native), Mandarin (Intermediate fluency)
 Design & Tools | Verilog, Altium, SolidWorks (CAD), NX (CAD), Adobe Illustrator, Final Cut Pro, Logic Pro