Shichang Ke

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https://gillksc.github.io/personal-site/

EDUCATION

Johns Hopkins University   Baltimore
Bachelor of Science   Expected June 2023

- Majors: Computer Science & Neuroscience
- Minor: History & Applied Mathematics and Statistics
- GPA: 3.74/4.00, Dean's List for 5 finished semesters
- Relevant coursework: Machine Learning, Computer Networks, Data Structures, Automata & Computation Theory, Computer System Fundamentals

SKILLS

- Programming Languages: HTML, C/C++, Python, Java, JavaScript, CSS, Matlab, Assembly
- Tools & Frameworks: MongoDB, Express, React, Nodejs, Django, Scikit-Learn, Pytorch, Scipy, Tensorflow, Matplotlib, GIT, Jupyter Notebook, Wireshark

PROJECTS

MACHINE LEARNING: LIVE TRANSLATION OF SIGN LANGUAGE   March 2022 - Present
Project Lead

- Built classifiers and object detector, using Python, for images of various users and backgrounds for American Sign Language letters
- Improved model so it can preprocess raw videos of people making ASL alphabet gestures

DEEP LEARNING PIPELINE FOR NEURON DETECTION   September 2021 - January 2022
Independent Project

- Designed a deep learning pipeline for automatic analysis of neuronal activities in Ca+ imaging data
- Included an automatic image preprocessing step by using Matlab and ImageJ
- Experimented on different parameters to finetone pipeline for data of mice brain activity recordings

WORK EXPERIENCE

JOHNS HOPKINS UNIVERSITY   Baltimore
Research Assistant - The Mysore Lab   September 2021 - Present

- Examined Fluorescence imaging data, fine-tuned pipeline for lab's data
- Debugged the MERN stack used for experimental data collection
- Conducted mice behavioral training on visual-spatial attention

JOHNS HOPKINS UNIVERSITY   Baltimore
Research Assistant - Neuroscience Department   February 2020 - October 2020

- Carried out Diffusion Tensor Imaging (DTI) preprocessing and analysis through Matlab, studied white matter tracts of patients with aphasia

COMMUNITY INVOLVEMENT

MEDHACKS
Promo   March 2022 - Present

- Created logos and posters using Adobe Photoshop & Illustrate, Figma