

Ayaan Haque

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EDUCATION

UC Berkeley College of Engineering

Berkeley, CA

B.S. in Electrical Engineering and Computer Sciences (EECS) – GPA: 4.00

Expected May 2025

- Relevant Awards/Organizations: MLH Top-50 Hacker, 33x Hackathon Winner, Machine Learning @ Berkeley

EXPERIENCE

Berkeley AI Research || Research Intern

Dec 2022 – Present

Kanazawa AI Lab in BAIR

Berkeley, California

- Working on editing NeRF scenes via text instructions with Prof. Angjoo Kanazawa, Matt Tancik, and more

Samsung SDSA || AI Research Intern

June 2022 – September 2022

Artificial Intelligence Research Team

San Jose, California

- Proposed “SSL-MeshCNN”, a novel self-supervised algorithm for segmenting non-uniform, irregular 3D meshes
- Designed new SimCLR-inspired stochastic augmentation policy for mesh-specialized contrastive learning
- Matched accuracy of fully-supervised training (90.50%) with just 67% of labels, reducing labeling costs by 33%

Stanford University || AI Research Intern

July 2020 – June 2022

Wang Group (Radiological Sciences Laboratory)

Stanford, California

- Lead 4 research projects mentored by Professor Adam Wang, wrote 5 papers in professional, top-10 ranked venues, published/presented work at international conferences/journals
- Addressed “limited-labeled data” challenge in AI-based medical imaging by leveraging self-supervised, semi-supervised, and multi-task learning
- Built multi-tasking segmentation and classification models, self-supervised image denoisers, and image-quality assessment algorithms, each method outperforming their respective state-of-the-art

Openwater Accelerator || Software Engineering Intern

August 2020 – December 2020

Internal SWE Team

Menlo Park, CA

- Developed Waitlist API for portfolio companies in accelerator cohort, allows companies to establish waitlists for their products and build market
- Used React.js, MongoDB, Flask and other web dev/backend tech, integrated Stripe API for user payments, implemented referral features, communicated with companies for feedback

SELECTED PUBLICATIONS (4 OUT OF 11)

A. Haque, H. Moon, H. Hao, S. Didari, J. Woo, P. Bangert. “Self-Supervised Contrastive Representation Learning for 3D Mesh Segmentation,” AAAI Conference on Artificial Intelligence (AAAI), 2023.

A. Haque. “EC-GAN: Low-Sample Classification using Semi-Supervised Algorithms and GANs,” AAAI Conference on Artificial Intelligence (AAAI), 2021. (*Best Student Abstract Finalist*)

A. Haque, V. Reddi, T. Giallanza. “Deep Learning for Suicide and Depression Identification with Unsupervised Label Correction,” International Conference on Artificial Neural Networks (ICANN), 2021.

A. Haque, A.A.Z. Imran, A. Wang, D. Terzopoulos. “MultiMix: Sparingly Supervised, Extreme Multitask Learning From Medical Images,” IEEE International Symposium on Biomedical Imaging (ISBI), 2021.

PROJECTS

Tickbird

September 2019 – April 2020

- Developed IOS app using Swift enabling visually impaired patients to aurally understand prescriptions
- Built OCR recognition pipeline with TesseractOCR/Firebase, published on App Store, received 250+ downloads

TECHNICAL SKILLS

Languages: Proficient: Python, Java, Swift, HTML. Familiar: CSS, Javascript, R

Frameworks/Tools: PyTorch, Tensorflow, Keras, Sklearn, NumPy, Pandas, NVIDIA GPUs, LaTeX, Scipy, OpenCV, RStudio, Firebase, MongoDB, Flask, React, Jupyter, Git, XCode, Ruby