Kabir Jolly

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EDUCATION

Stanford University **Stanford, CA**

B.S. Computer Science (Artificial Intelligence). GPA: 3.9/4.0 *2020-2024*

- Relevant Coursework: Data Structures and Algorithms, Operating Systems, iOS/Web Development, Computer Vision, Natural Language Processing, Investment Science, Probability, Linear Algebra and Matrix Theory
- Activities: Neo Scholar, Pear Garage Fellow, CURIS Fellow, CS+Social Good Impact Lab, Sigma Phi Epsilon (VP)

M.S. Computer Science (Human-Computer Interaction) *2024-2025*

EXPERIENCE

Valar Labs (backed by Andreessen Horowitz/a16z) **Palo Alto, CA**

Machine Learning Engineer *June 2022 - Aug 2022*

- Created interpretable artificial intelligence pipelines to assist decision making for oncologists
- Led efforts to implement nuclei classification and segmentation models in PyTorch for computationally analyzing histopathology whole slide images
- Built end-to-end annotation and data ingestion workflow to facilitate supervised learning methods

Stanford Psychophysiology Lab **Stanford, CA**

Research Assistant *June 2021 – Aug 2021*

- Used Arduino to construct and evaluate palatal PPG and microphone apparatus for nasal cycle detection
- Developed a pipeline to calculate loudness measurements and FFTs from collected nasal exhalation data

Adobe **Noida, India**

Data Science Intern *June 2019 – Aug 2019*

- Worked with Adobe's industry partners to develop a system for counterfeit retail item detection
- Used TensorFlow Lite and Swift to develop a computer vision-based app and presented project to the Senior Principal Scientist of the Adobe Media and Data Science Research Lab

PROJECTS

Stanford Medical Center – Independent Research *Nov 2020 – Present*

- Utilizing longitudinal deep learning models (hierarchical attention networks) on EHR data to predict hospital readmission due to chronic disease exacerbation during periods of bad air quality
- Leading exploratory data analyses to validate increased hospital admissions due to asthma and COPD with spikes in particulate matter ($PM_{2.5}$) concentration
- Currently writing paper for publication in a digital health conference as co-first author

KidneyCare *Dec 2020 – Apr 2021*

- Built postoperative patient engagement platform for the kidney transplant team at the Stanford Medical Center
- Developed the frontend for the app using SwiftUI and the backend using Firebase and CardinalKit
- Created Bluetooth modules to interface with BP monitor and built health metric dashboards using ResearchKit

ScrAPPS *Aug 2017 – June 2019*

- Started a service to connect grocery stores and restaurants with compost sites via privately contracted haulers
- Created iOS app using Swift. Integrated a payment portal and Firebase backend for waste haul scheduling
- Successfully partnered with Whole Foods and California Pizza Kitchen to save 6+ tons of waste from landfills

TECHNICAL SKILLS

Languages and Libraries: Python (PyTorch, TF, NumPy, Pandas, SciPy), C++, Swift, HTML/CSS/JavaScript

Tools: Machine and Deep Learning (Computer Vision, NLP), Data Processing/Analysis, Cloud (AWS, GCP)