B.A. in Computer Science, History Minor

GPA: 4.17 / 4.00 | Dean's List for Excellence in Scholarship (all semesters)

Coursework CS 6820: Analysis of Algorithms\* CS 6670: Computer Vision\*

assistant

\* = in progressCS 4820: Algorithms<sup>†</sup> † = teaching

CS 4780: Machine Learning<sup>†</sup> CS 4450: Computer Networks CS 3410: System Organization

CS 3110: Functional Programming CS 2110: Data Structures & OOP<sup>†</sup>

CS 4414: Systems Programming\*

CS 2800: Discrete Structures

MATH 2210: Linear Algebra

ENGRD 2700: Probability

SKILLS

Languages Python, OCaml, Typescript, JavaScript, C/C++, Java, HTML/CSS, Bash Technologies React, Angular, PyTorch, Redux, Flask, Git, Jupyter

EXPERIENCE

Google, Inc., Sunnyvale, CA (Remote)

May 2021 - Aug 2021

STEP Intern, Google Cloud AI

- Designed and developed hyperparameter configuration suite, enabling on-the-fly redeployment of model training for the recently launched Visual Inspection AI product
- Implemented entity tag support for backend operations using C++ and protocol buffers, reducing vulnerability to race conditions and improving product scalability
- Full-stack development with Angular, HTML/CSS, GraphQL, and a Google Spanner database

### YITU Technology, Singapore

May 2020 - Aug 2020

Research and Development Intern

- Researched and implemented proprietary instance detection and orientation classification models in PyTorch to detect and classify identity cards in input images, decreasing mean absolute error by more than 20% relative to previous solution
- Classified presence of lung inflammation in MRI scans, utilizing logistic regression and random forest classifier, for use in publication in European Journal of Nuclear Medicine and Molecular Imaging

# Cornell University Unmanned Air Systems, Ithaca, NY

Oct 2019 - present

Software Engineer, Subteam Lead

- Software engineer and incoming subteam lead at top undergraduate fixed-wing aircraft team, which manufactures a custom plane yearly to accomplish autonomous navigation and target identification
- Implemented end-to-end framework in PvTorch for training and evaluating machine learning models on images captured from autonomous aircraft, used by entire subteam
- Architected and deployed a new web service using React, Flask, and MySQL, for use on all flights, to run segmentation and classification algorithms on collected images

## PREPRINTS & Edge Proposal Sets for Link Prediction [2] (7)

(under submission)

PUBLICATIONS Abhay Singh, Qian Huang, Linda Huang, Omkar Bhalerao, Horace He, Ser-Nam Lim, Austin Benson

#### Large Scale Learning on Non-Homophilous Graphs

(under submission)

Derek Lim, Felix Hohne, Xiuyu Li, Linda Huang, Vaishnavi Gupta, Omkar Bhalerao, Ser-Nam Lim

Projects

#### Skedaddle Camel 🖸

• Created interactive maze game in OCaml utilizing model-view-controller and state design patterns, in team of four

#### Animated Pomodoro Timer $\square$

• Implemented and deployed React/Redux app with Pomodoro timer functionality as a Chrome extension, with static and dynamic assets designed from scratch using HTML/CSS & Figma

#### Interactive Tax Calculator $\Box$

• Implemented Chrome extension that injects React scripts into relevant web pages to display post-tax product prices, utilizing SQLite database to store location-based tax information