

Ian Hou

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Learning and work are the same to me; in order to do one, one must do the other.

EDUCATION

Dartmouth College, Hanover, NH

June 2022

Bachelor of Arts: Majors, Computer Science and Chinese Language

GPA 3.63/4.0

Relevant Courses: Object-oriented Programming (Java), Software Design and Implementation (C), Discrete Math, Algorithms, Full-stack Web Development, Machine Learning and Statistical Data Analysis (Python3), Artificial Intelligence (Python3)

PROFESSIONAL EXPERIENCE

Mana, San Francisco, CA

June 2020 – Present

Engineering Intern

- Built new iteration of machine learning model as lead developer with Python3, sci-kit learn, and TensorFlow for a mobile habit-tracking app to predict activity with up to 90% accuracy, improving by 15%
- Deployed an ensemble model with Docker, integrating with a full-stack app using RabbitMQ as a communication layer
- Designed a neural network (95% accuracy for some users) using TensorFlow and Keras
- Maintained server uptime through DevOps activities in multiple Google Cloud servers, such as live debugging, use of bash scripts through crontab, and server logging

Digital Applied Learning and Innovation (DALI) Lab, Hanover, NH

January 2020 – Present

Level 2 Software Developer

- Developed and deployed Whiteboard Mobile, a React Native/Firebase app that helps users plan their near and far-term future through task management in a friendly UI
- Developed and deployed Flourish, a React Native/Express app that helps users track medical conditions and aggregate data to research undiscovered conditions
- Developed GoPhish, an anti-Phishing web-app (React.js, Ruby on Rails) for Dartmouth IT department to protect students and faculty at college institutions; platform scheduled for release to Dartmouth's 7,000+ students and employees Winter 2021
- Awarded Neukom Scholarship for research in the development of novel computational methods on the tracking and identification of undiagnosed medical conditions

Dev Consultant, Researcher

- Conducted thorough competitive analysis of five main competitors for Sustainable Materials, a platform that reduces waste and emissions in manufacturing; proposed an integrated development strategy for increased efficiency
- Identified key factors (socioeconomic, accessibility, retention) necessary for successful launch for an app enabling medical professionals to prescribe recipes to patients to encourage better prognoses

LEADERSHIP EXPERIENCE

Dartmouth College Computer Science Department, Hanover, NH

January 2019 – August 2020

Teaching Assistant

- Held office hours and one-on-one meetings with students in Full Stack Web Development; created and troubleshooted lab assignments involving web development frameworks (React.js, React Native, and Node.js) for a class of 50 students
- Tutored 6 students in Introduction to Programming and Computation; met with each student 3 hours a week to debug assignments and go over course concepts resulting in grade improvements of up to two letter grades

United States Army Reserve, Rutland, VT

September 2018 – June 2019

Intelligence Analyst at the 826th Military Intelligence Battalion (Interrogation), Cadet at the 424th Engineer Company

- Maintained a TS-SCI clearance, 2018 – Present
- Planned and executed analytical reports on short notice
- Held financial responsibility for equipment ranging in millions of dollars

SKILLS AND INTERESTS

Programming: Python3, Java, C, Linux Bash, CSS, HTML, JavaScript, Node.js, React.js, React Native, SQL, Git, Firebase, MongoDB, Docker, Google Cloud, Tensorflow, Websockets, RabbitMQ

Other skills: Wilderness EMT, risk management, Mandarin (native proficiency), Castilian Spanish (working proficiency)

Campus involvement: Team Leader in Army ROTC, Lead trumpet in Dartmouth Symphony Orchestra, Leader in Ledyard Canoe Club, Bait and Bullet, and People of Color Outdoors

Interests: homebrewing, hiking, cycling, skiing, swimming, Give Essential web dev volunteering