Edward Chau

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EDUCATION

University of California, Berkeley **Fall 2021**
B.S. Electrical Engineering and Computer Science
Coursework: Data Structures, Discrete Math, Probability, Logic Design, Data Science, Multivariable Calculus, Linear Algebra, Differential Equations

EXPERIENCE

Lockheed Martin **June 2020 – Aug 2020**
Artificial Intelligence Research Intern

UC Berkeley CS61A (Structure & Interpretation of Programs) **Feb 2020 – May 2020**
Academic Intern
- Supported and taught computer science fundamentals in Python, SQL, Scheme to labs of 30 students

NASA Marshall Space Flight Center **June 2019 – Aug 2019**
Software Development Intern
- Developed command line application in Python to automate process of training sensor data on neural networks and organize results
- Researched and developed machine learning models (Autoencoders, LSTM-Autoencoders, KNN, Random Forests) in Tensorflow/SKLearn for fault detection automation in rate gyroscopic sensors on the Space Launch System

Huntington Medical Research Institutes Neuroimaging Lab **Dec 2018 – June 2019**
Data Science Research Intern
- Led research and development of deep learning models (CNN, U-Net) in Tensorflow/Keras/PyTorch to detect white matter lesions in T1 and T2 FLAIR Brain Magnetic Resonance Images (MRI)
- Created application in Python to automate process of finding cerebrovascular reactivity and cerebral blood volume mappings of CO2 and O2 respiratory data

PROJECTS

Treasure Hunter **June 2020**
- Built turn-based rpg based on Pokemon using React and Redux

Douglas Nguyen, DDS Check-in Form **May 2020**
- Developed web application using React and Express with MongoDB for Douglas Nguyen, DDS's 1500 monthly patients to check in during COVID19 times and allows staff to manage list of checked in patients

Deep Learning for Diagnosis of Tuberculosis in Chest X-Rays **Oct 2018 – Jan 2019**
- Developed deep learning model (CNN) in Tensorflow to diagnose Tuberculosis in Chest X-Rays (Research Mentorship under Dr. Paul J. Wilkinson, U.S. Airforce Academy)
- Presented at Southern California Conference for Undergraduate Research and Honors Transfer Council of California Conference
- Received $1000 Research Scholar Award

Mood Up! (CalHacks 5.0) **Nov 2018**
- Built sentiment analysis Discord chat bot in Python with Clarafai API and IBM Watson that analyzes emotions in messages to create appropriate response

Notable Class Projects:
Gitlet: Version Control System (Java), Lines of Action Game w/ GUI and AI (Java), Enigma Machine (Java), Signpost Puzzle (Java), Chess (Java, Swing), Language Processor to Analyze Books (C++, QtWidget), Shortest Path to Fire Stations in LA (C++, QtWidget), Reverse Polish Notation Calculator (C++, QtWidget), Scheme Interpreter (Python), Music Player (C++)

PROFESSIONAL DEVELOPMENT

edX (Massive Open Online Course Platform)
Microsoft: NodeJS, TypeScript, Functional Prototypes w/ Node.js, ReactJS, React Router/Redux, Asynchronous Programming, Typescript
IBM: AI Capstone Project, Using GPUs to Scale and Speed-Up Deep Learning, Deep Learning in Tensorflow/Pytorch, Keras
***Harvard*:** Using Python for Research

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript (ES6), SQL
Frameworks: Node.js, Express, React, Redux, Pandas, NumPy, PyTorch, Tensorflow, SKLearn
Technologies: HTML5, CSS3, Docker, Domino, Git, MongoDB, Arduino