Jesse Chan

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Education

Carnegie Mellon University, Pittsburgh, PA — May 2023 (expected)
B.S. in Computer Science — GPA: 4.0
Relevant Technical Coursework: Computer Networks (15-441, C), Deep Learning (11-485, Python), Computer Security (15-330, C), Natural Language Processing (11-411, Python), Computer Systems (15-213, C), Parallel Algorithms and Data Structures (15-210, SML/PML)

Experience

Software Engineering Intern (Backend) – SeekOut — May 2020 - May 2021
Platform for talent search and recruitment

- Increased diverse candidates by 50%, resulting in a company-wide effort to push the improved feature to customers
  - Trained classification model on facial images and designed scalable inference with Azure batch jobs and message queue
- Developed related-skill auto-suggestion engine for 300,000 job skills, based on a word2vec recommendation system
- Established pipeline to analyze an index of 10 million StackOverflow users to include in overall recruitment profile
- Designed API for a job description parser that examines biased words, information completeness, and text sentiment
- Enhanced core Github-LinkedIn profile mapping algorithm for 440 million users using a facial image similarity classifier, resulting in 9% increase in accuracy and 14% increase in match counts

Co-Founder – Paragon — June 2020 - February 2021

- Launched Python summer camp for 20 students, teaching everything from fundamentals to AI concepts
  - Led course design of a interactive website and homework projects such as Chess AI, Calendar and Hangman
- Contracted by leading real estate firm Tishman Speyer to provide a 2-day bootcamp for data analytics and web scraping

Software Engineering Intern – Clobotics — December 2019 – January 2020
Computer vision company focused on retail and windmill blade inspection

- Developed features for log-in/sign-up, streaming video, scanning qr code, and online/offline database synchronization for Clobotics REA IOS mobile application
- Identified efficiency bottleneck in C++ image stitching SDK through performance testing, proposed and implemented solution that resulted in 200%+ increase in the number of 4K photos that can be stitched

Fundamentals of Programming (15-112) Teaching Assistant – Carnegie Mellon University — Fall 2019

- Taught object-oriented programming skills in python for up to 500 students through office hours and recitation
- Mentored 10 students on their final projects, overseeing their code design and documentation.

Projects

Portable Poker	A real-time multiplayer poker chip simulator that you can use in place of physical chips, built using React (currently being converted to Phaser 3 for smoother graphics and audio), Node, Express, and SocketIO.
Bittle	Developed vision tracking capabilities and smooth gait transitions for an arduino based robot dog while optimizing for memory usage between limited Flash, EEPROM and RAM in the embedded system.
Question-Answer Generation	Text-to-questions and question-to-answer SDK built using NLP tools for syntax trees, named entity recognition, coreference resolution, and part-of-speech tagging.
Instagram Like-Prediction	Computer vision research done at Hong Kong University of Science and Technology to build a siamese convolutional neural network, achieving 70% accuracy in predicting which post would get more likes.
MovieAssist	Movie poster image recognition using openCV OCR and movie recommendation using associative rules

Skills

- **Programming Languages**: Python, C, C#, C++ , Swift, Javascript, HTML5/CSS, Standard ML, Parallel ML, SQL
- **Technology**: Azure, AWS, GCP, LeanCloud, Realm, Tensorflow, Pytorch, OpenCV, NLTK, SwiftUI, React, Node, Express, Phaser 3, SocketIO, LaTeX, Linux, Bash, Git