Jesse Chan

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EDUCATION:

Carnegie Mellon University, Pittsburgh, PA — May 2020 (expected)
B.S. Computer Engineering and Computer Science — Q.P.A.: 4.0
Relevant Technical Coursework: Introduction to Computer Systems (15-213, C), Natural Language Processing (11-411, Python), Parallel/Sequential Data Structures and Algorithms (15-210, SML/PML), Convolutional Neural Networks (cs231n online, Python), Principles Imperative Computation (15-122, C), Functional Programming (15-150, SML), Matrices and Linear Algebra, Probability Theory, Calculus in 3-D

EXPERIENCE:

Software Engineering Intern (Natural Language Processing Algorithms) – SeekOut — May 2020 - Present
- Developed recommendation system for job skills utilizing word2vec and joint representation learning models
- Established end-to-end pipeline to create profiles for 10 million StackOverflow users using C# and Google BigQuery
- Revamped African American image classifier with name based features, resulting in 10% increase in precision
- Designed parallel and concurrent algorithms to deal with processing large datasets in a multi-core environment
- Improved core GitHub to LinkedIn profile mapping algorithm accuracy by 9% and increased mapping counts by 14% through combination of a novel facial image similarity classifier with existing text features based classifier

Co-Founder – Paragon — June 2020 - Present
- Launched summer python bootcamp for 20 students, teaching everything from fundamentals to AI concepts
- Led course design, including well-documented homework projects such as Chess AI, Calculator, Calendar and Hangman
- Contracted by leading real estate firm Tishman Speyer to provide a 2-day bootcamp for data analytics and web scraping
- Facilitated sales and marketing of product, grossed ~$5000 within weeks of launching

Software Engineering Intern – Clobotics Global — December 2019 – January 2020
- Developed demo SwiftUI IOS application for the Franklin project with LeanCloud and Realm databases
- Identified efficiency bottleneck in C++ image stitching SDK through XCode performance testing
- Proposed and implemented novel solution that resulted in 200%+ increase in the number of photos that can be stitched

Fundamentals of Programming and CS (15-112) Teaching Assistant – at 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
- Held optional lectures on OpenCV and Cloud Computing for groups of up to 100 students

Computer Vision Software Research Intern – Hong Kong University of Science and Technology — July – August 2019
- Utilized siamese convolutional neural networks and achieved 70% accuracy in like-prediction on Instagram
- Generated Instagram image dataset of 200,000+ images from top 1,000+ influencers

PROJECTS:

Question Answer Generation System (qa-nlp), Watch the Video or See the Code — Spring 2020
- Developed a text-to-question generation system on Docker with nlp tools such as NLTK, SpaCy and CoreNLP
- Knowledgeable about intermediate natural language processing tasks such as named entity recognition, coreference resolution, and part-of-speech tagging

Movie Poster Recognition/Recommendation System (MovieAssist), Watch the Video or See the Code — Spring 2019
- Generated pipeline with OpenCV, EAST text detector and Tesseract OCR to recognize text of movie posters
- Built recommendation system for detected movies using associative rules on the MovieLens dataset

SKILLS AND AWARDS:

- **Programming Languages**: Python, C, C#, C++ , Standard ML, Parallel ML, Swift, Javascript (React), HTML5/CSS
- **Data/ML**: Pytorch, Tensorflow, NumPy, Pandas, Scikit-learn, NLP Packages (NLTK, sPaCy, gensim)
- **Tools**: SQL, LaTeX, Linux, Bash, Git, VSCode, LeanCloud, Realm, Xcode, Azure, Google Cloud, AWS
- **Awards**: Dean's List (all semesters), 2nd Place Overall for an AR drum system at Hack-112
- **Natural Languages**: English (native and fluent), Mandarin (fluent), Cantonese (working proficiency)

EXTRACURRICULARS:

- **Data Science Club** – Member
- **Carnegie Mellon Solar Racing** – Team Lead, Power
- **CMU Innovation and Entrepreneurship Association** – Member