Jo Chuang

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Education

Cornell University, Ithaca **2016 – 2019**

Bachelor of Science in Computer Science, College of Engineering

- Relevant Coursework: Algorithms, Machine Learning and Intelligent Systems, Computer System Organization and Planning, Discrete Structures, OOP and Data Structures
- Current Coursework: Functional Programming, Probability and Statistics, Machine Learning for Data Sciences, Advanced Topics in Machine Learning, Advanced Machine Learning Systems
- GPA: 4.12

Experience

Algorithms (CS 4820) Teaching Assistant **Aug 2017 – Current**

Kaggle Competition Team Lead - Cornell Data Science Project Team (CDS) **Aug 2017 – Current**

- Currently leading a team in Kaggle competitions, exploring text and image based datasets and applying state of the art packages such as XGboost and Tensorflow/Keras to develop competitive models

Researcher (Under Contract) - Team Ursa **Jul – Sep 2017**

- Conducted research for an audio alignment task, determining the relative time difference between audio recordings of interviews from different sources
- Used FFMPEG, Numpy and Scikit to downsample, preprocess, calculate correlation and determine a final result by consensus
- Built a modular system that achieved human-level performance, then wrote accompanying documentation in preparation for integration with core product, an interview recording app

Junior Software Engineering Instructor - Horizons School of Technology, San Francisco **May – Aug 2017**

- Designed and revised curriculum covering full MERN stack (MongoDB, Express, React/Redux, Node), was responsible for building an introductory React tutorial
- Tutored cohort of 100+ undergraduates in small group seminar settings, dynamically responding to student queries and resolving technical roadblocks
- Mentored students developing startup ideas, providing advice with code architecture, project iteration and business strategy

Kaggle Project Team Member - Cornell Data Science Project Team (CDS) **Jan – Jun 2017**

- Participated in data science competitions as part of the CDS Kaggle subteam, completing multiple projects during semester
- March Madness Kaggle prediction: Built a logistic and tree regression model to predict matchups as part of a boosted ensemble
- Allen AI project: Answering 8-th grade science multiple choice questions using NLP methods: member of Knowledge Base team, built package for interfacing with py-wikibot for query expansion

Projects

Engag-ed - Big Red Hacks, Cornell - Microsoft Prize, Best UI **Sep 2017**

- Built an intelligent classroom suite that included features such as facial-recognition based attendance tracking, real-time student sentiment and engagement analysis, and instant polling
- Worked in and directed 4-person team in building final webapp, implementing a RESTful API in Express, interfacing with Microsoft Cognitive Services Emotion/Face APIs through Project Oxford, and using Mongoose/Mongo for persistent storage
- Presented as 10 finalists out of 40+ teams, final entry won the Microsoft Grand Prize and Best User Interface

Machine Learning Playground - www.ml-playground.com **Jun – Aug 2017**

- Created a user-friendly educational site for introducing ML with customizable models, featured on front page of Product Hunt
- Designed a testing playground that took user input from an HTML canvas managed by a complex class structure using React and Promises, then pipelined user-designed datasets to the models for training and classification
- Implemented multiple machine learning algorithms from the ground up (KNN, decision trees, neural networks and more) with Javascript and math.js

Digit Classification Challenge - 4780 Machine Learning Final Class Project **May 2017**

- Evaluated different methods for an OCR assignment that involved classifying an MNIST-like digit dataset, such as Deep Net, Logistic Regression, and KNN, using both Python scripts and notebooks
- Performed median filtering, dataset expansion and KNN for final model, with training accuracy of 99%
- Achieved final accuracy of 99% for hidden evaluation dataset

FailureDetectionDS - Big Red Hacks Spring, Microsoft, Cornell - Second Place **Mar 2017**

- Developed suite of methods for detecting anomalies in time series telemetric data
- Worked in a team of 4 to learn and develop a model pipeline on the Microsoft Azure Machine Learning platform, using packages such as correlative and Time Series based modules
- Designed final technical presentation; project won 2nd place overall out of approximately 30 participating teams

Showerfy - Big Red Hacks, Cornell **Sep 2016**

- Led 5 person team in development of Android app that gamified showers to reduce water usage in response to a local drought, using a timer that played music through the Spotify Android SDK
- Learned, implemented and taught Android development with Java
- Presented as one of 10 finalists out of all 30 participating groups

Skills

- Web Development: Javascript, Node.js, React/Redux, Firebase, Express, MongoDB, Sockets.io
- Data Science: Python, Pandas, Numpy, Scikit-Learn, XGBoost
- Software Development: Java, C++