Anthony Liu

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Class of 2019

Education

- **University of Michigan** — Ann Arbor, MI
  BSE in Computer Science (ongoing); GPA: 3.95 — *Fall 2015 – Spring. 2019*
  - **Relevant Coursework**: Operating Systems (EECS 482), Machine Learning (EECS 445), Computational Complexity (EECS 574), Theoretical Statistics (STATS 426), Honors Analysis (MATH 395)
  - **Honors/Awards**: Engineering Deans Honor List, University Honors, James B. Angell Scholar

Experience

- **Bloomberg L.P.** — New York City, NY
  Data Science Intern — *2018 Summer*
  - Implemented 20 state-of-the-art active learning query strategies from recent papers in the field
  - Tested strategies against diverse datasets in text classification, sentiment analysis, NER using Python Scikit-Learn
  - Designed a flexible framework for using active learning for ML teams within Bloomberg
- **University of Michigan** — Ann Arbor
  Research and Teaching Assistant — *2017 Fall - Present*
  - **Teaching Assistant - Operating Systems (2017), Artificial Intelligience (2018)**: Led discussion of 20 students teaching operating concepts - networking, multithreading, networks, threads, synchronization primitives, etc.
    Led discussion of 20 students teaching AI concepts - search, logic, planning, machine learning etc.
    Final instructor ratings: Top 25% in overall instruction effectiveness
  - **Research Assistant - Human-in-the-loop Artificial Intelligience**: Developed real-time, collaborative, synchronous text annotation application (Meteor JS, MongoDB) with a partially trained NLP pipeline (Python Scikit-learn
    Led a team of undergraduates to develop a novel active learning ML model training pipeline
- **Clinc Inc.** — Ann Arbor
  Software Intern — *2017 Summer*
  - Developed an automated crowd data collection library through the Amazon MTurk API in Python, was used to collect 10,000 natural language queries for a conversational AI
  - Created tools to detect and visualize topics from natural language queries using unsupervized learning methods - clustering, TfIdf, LDA t-SNE - in Python

Projects

- **Distributed File System** — Ann Arbor
  Team member — *2017 Spring*
  - Developed in C++ with TCP protocol and AES encryption support
  - Supported RPC's for multiple users and concurrent reading/writing/deleting of files/directories using C++11 threading and memory management features
- **Fathom - an AI assistant for helping students study** — Ann Arbor
  Engineering Lead — *2017 Summer*
  - Created a question generation feature through NLP sentence classification and entity recognition.
  - Implemented question verification system using a BiLSTM deep neural network trained on the SNLI corpus
  - Finalist in the Campus of the Future competition

Skills

- **Programming Languages**: C++, Python, Javascript, Haskell, SQL, Matlab, HTML, CSS
- **Frameworks**: Meteor JS, Flask, Jinja
- **Software/tools**: Linux, Git, vim, gdb, LaTeX, MongoDB