Sander Lanbo SHI

(412) 478 7080
sandershi@cmu.edu
sandershi.com
github.com/sandershihacker

EDUCATION

CARNEGIE MELLON UNIVERSITY

B.S. COMPUTER SCIENCE
MINOR IN MATHEMATICS
Class of 2019 | Dean's List

COURSEWORK

COMPUTER SCIENCE

Computer Vision
Machine Learning
Algorithm Design & Analysis
Data Science
Complexity Theory (TA)
Parallel Algorithms
Computer Systems
Theoretical Ideas in CS

MATHEMATICS

Real Analysis
Calculus in 3D
Matrix Algebra
Discrete Math
Probability Theory

SKILLS

COMPUTER

Languages
Python • Java • SML • C/C++
Matlab/Octave • Javascript
Typescript •

Technologies
Angular • Scikit-Learn
Keras • PyQt5 • Spark
Hadoop • Neo4j • LaTeX
Git • Linux (avid Arch Linux
user) • Unix • Jekyll

NATURAL LANGUAGES

English (Native/Bilingual)
Mandarin (Native/Bilingual)
French (Elementary)

WORK EXPERIENCE

HULU | SOFTWARE ENGINEERING INTERN   Seattle, WA | Summer 2018
- Designed a graph model and wrote a Spark job to populate a graph database for user path analysis. Deployed on docker containers on a cluster of servers.

SCHRÖDINGER | SOFTWARE ENGINEERING INTERN   New York, NY | Summer 2017
- Implemented features for a cross-platform protein sequence viewer in Python & Qt5.
- Improved synchronization between QtWidgets and reduced the code base by 10%.

OPENCHIRP | SOFTWARE ENGINEER (PART-TIME)   Pittsburgh, PA | Spring, Fall 2017
- Developed a management framework for Low-Power WAN devices using Angular.
- Created a dashboard that interacted with the devices using a REST API.

TUXLAB | SOFTWARE ENGINEERING INTERN   Pittsburgh, PA | Summer 2016
- Developed a framework for creating interactive Linux courses using Angular Meteor.
- Integrated a web terminal (tty.js) into the web app.

PROJECTS

YELP RATING PREDICTION   Group Project | Spring 2018
- Lead a team of 3 to query, parse and analyse restaurant data, then train on ML models.

MIDI CLASSIFICATION TUTORIAL   Data Science Course Project | Spring 2018
- Created a tutorial that went through parsing midi data, extracting features and training on different ML models (ANN, SVM). 75% test accuracy over 15 classes.

HANDWRITTEN DIGIT CLASSIFIER   CV Course Project | Spring 2017
- Implemented a Convolutional Neural Network with the LeNet architecture.
- Trained newtork on handwritten digits and acheived a 97% test accuracy.

GRIDWORLD RESOURCE COLLECTION AGENT   Competition | Spring 2017
- Designed search algorithm to collect resources in a 2D grid within a number of steps.
- Won 1st place for 4 out of 5 rounds (Algorithms with a Purpose).

WEB DEVELOPMENT   For Fun | 2012 - Present
- Designed and developed over 10 websites/web apps, including a CMU student org website (https://www.cmu.edu/summit), my personal website, a miniature social networking site, and many more.

EXTRACURRICULAR ACTIVITIES

Student Organizations | 2015 - 2018 | Was a member of the Archery Club, Parkour Club, and CMU Sahara (Bollywood Dance Team). Performed in dance competitions.
Music | 2001 - Present | Play, compose and improvise on the piano, saxophone and trumpet with classical and Jazz music. Trying to learn as many instruments as I can.