Sander Lanbo SHI

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EDUCATION

CARNEGIE MELLON UNIVERSITY
B.S. Computer Science
Minor in Mathematics
Class of 2019

COURSEWORK

COMPUTER SCIENCE
Computer Vision
Machine Learning
Algorithm Design & Analysis
Data Science *
Complexity Theory *
Parallel Algorithms
Computer Systems
Theoretical Ideas in CS

MATHEMATICS
Real Analysis *
Calculus in 3D
Matrix Algebra
Discrete Math
Probability Theory
(* : In progress)

SKILLS

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

Technologies
HTML • CSS/SCSS • Angular
Meteor • Scikit-Learn
Android Studio PyQt5 • LaTeX
Git • Linux (avid Arch Linux user) • Unix

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

WORK EXPERIENCE

HULU | Incoming Software Engineering Intern   Seattle, WA | Summer 2018
- Will be a software engineering intern on the client data metrics team.

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

MIDI CLASSIFICATION TUTORIAL   Data Science Course Project | Spring 2018
- Created a Jupyter notebook tutorial that went through the entire pipline of parsing data, extracting features and cross-validation on different ML models (ANN, SVM).
- Acheived 75% 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).

CMU STUDENT ORGANIZATION WEBSITE   CMU Club | Fall 2016
- Designed and developed club website of CMU Summit. (https://www.cmu.edu/summit)

ANDROID GAME: TARTAN TAG   Hackathon (HackCMU) | Fall 2015
- Developed the game using a barcode scanning API on a team of 4.

EXTRACURRICULAR ACTIVITIES

CMU Clubs (Student Organizations) | 2015 - 2018
Was a member of the Archery Club, Parkour Club, Scotch'n'Soda theatre, as well as CMU Sahara (Bollywood Fusion Dance Team). Performed at Steel City Sapna dance competition.

Music | 2001 - Present
Play, compose and improvise on the piano and saxophone with classical and Jazz music.

Public Forum Debate | 2012 - 2015
Went to four debate tournaments, won a quarter finalist prize and two best speaker prizes.