

Sander Lanbo SHI

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EDUCATION

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

COURSEWORK

COMPUTER SCIENCE
*Distributed Systems
Computer Vision
Machine Learning
Algorithm Design & Analysis
Data Science
Complexity Theory (TA)
Parallel Algorithms
Computer Systems
Theoretical Ideas in CS
*Constructive Logic

MATHEMATICS

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

SKILLS

COMPUTER

Languages
Python • Java • SML • C/C++
Javascript/Typescript • Go
Technologies
Angular • Scikit-Learn
Keras • Spark • Hadoop
Neo4j • \LaTeX • Git • Linux (avid
Arch Linux user) • Unix

NATURAL LANGUAGES

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

WORK EXPERIENCE

CARNEGIE MELLON UNIV. | TEACHING ASSISTANT Pittsburgh, PA | Fall 2018
• Hold office hours, and grade exams and homeworks for Complexity Theory.

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.
• Created RESTful API with Express and Typescript to query Neo4j graph database.

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.

WEB DEVELOPMENT Hobby | 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.