# 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**

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

**Technologies** 

HTML • CSS/SCSS • Angular Meteor • Scikit-Learn

Keras • Android Studio

PyQt5 • 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

• Currently interning 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**

#### 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.

#### ANDROID GAME: TARTAN TAG

Hackathon (HackCMU) | Fall 2015

• Developed the game using a barcode scanning API on a team of 4.

## **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.