# Sander (Lanbo) SHI

# **FDUCATION**

# 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

#### Other

- HTML5, CSS3 & SCSS
- Angular
- Meteor
- Android Studio
- Qt5, PyQt5
- MTFX
- Git
- Linux (avid **Arch Linux** user)

## **NATURAL LANGUAGES**

- English
- Mandarin

# WORK EXPERIENCE

## HULU | Incoming Software Engineering Intern

June 2018 - August 2018 | Seattle, WA, USA

• Will be interning on the client data metrics team.

## **SCHRÖDINGER** | SOFTWARE ENGINEERING INTERN

May 2017 - August 2017 | New York, NY, USA

- Helped develop a multiple protein sequence viewer with Python and Qt5.
- Redesigned and reimplemented the synchronization between QtWidgets which reduced the code base by 10%.

## **OPENCHIRP** | SOFTWARE ENGINEER (PART-TIME)

January 2017 - September 2017 | Pittsburgh, PA, USA

- Developed the website and dashboard for an IoT device using Angular.
- Wrote code to send HTTP requests to and process responses from a REST API.
- Integrated a map into the webapp that displays live locations of devices.

## TUXLAB | SOFTWARE ENGINEERING INTERN

May 2016 - August 2016 | Pittsburgh, PA, USA

- Developed a tool using Angular Meteor, that will be used to teach Linux based courses.
- Integrated a web terminal (tty.is) into the web app.

# **PROJECTS**

# **DEEP NEURAL NETWORK PARTITIONING**

Spring 2018 | Research Project | Machine Learning

• Working on partitioning neural networks across devices to lower energy consumption.

#### HANDWRITTEN DIGIT CLASSIFIER

Spring 2017 | Course Project | Computer Vision

• Implemented a CNN with the LeNet architecture and acheived a 97% test accuracy.

## **GRIDWORLD RESOURCE COLLECTION AGENT**

Spring 2017 | Team Project | Algorithms with a Purpose Competition

• Designed a searching algorithm to find resources in a 2D grid and return them back to base within a certain number of steps. Won **1st place for 4 out of 5 rounds**.

#### **CMU SUMMIT WEBSITE**

Fall 2016 | CMU Club Website

• Designed and developed the club website of CMU Summit, which helped students browse and sign up for courses. (https://www.cmu.edu/summit)

# **EXTRACURRICULAR ACTIVITIES**

CMU Sahara | 2017 - Present

Member of the CMU Sahara dance group. Participated in multiple competitions.

Music | 2001 - Present

Play, compose and improvise on the piano 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.