# 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
HTML5, CSS3 & SCSS •
Angular • Meteor • Android
Studio • Qt5, PyQt5 • LATEX•
Git • Linux (avid Arch Linux user)

#### 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 using Angular.
- Created a dashboard that interacted with a REST API.
- Integrated a map into the webapp that displays live locations of devices.

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**

**DEEP NEURAL NETWORK PARTITIONING** ML Research Project | Spring 2018

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

#### HANDWRITTEN DIGIT CLASSIFIER

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)
- Helped students browse and sign up for courses.

## ANDROID GAME: TARTAN TAG

Hackathon Project | Fall 2015

- Developed an Android game in a team of 4 during the HackCMU hackathon.
- Used barcode scanning API to scan barcodes to mimic shooting of lazers.

# **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.