Sander Lanbo Shi

EDUCATION

CARNEGIE MELLON UNIVERSITY

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

COURSEWORK

COMPUTER SCIENCE Algorithm Design & Analysis Complexity Theory (TA) Computer Vision Data Science Distributed Systems Functional Programming Machine Learning Natural Language Processing Parallel Algorithms

MATHEMATICS

Real Analysis Matrix Algebra Discrete Math Probability Theory Set Theory Combinatorics

SKILLS

COMPUTER Languages

C++ • Python • Java • Javascript/Typescript

Technologies Git • Linux (avid Arch Linux user) • GN (build system) • Angular • Scikit-Learn Keras • &TFX• Flutter

NATURAL LANGUAGES

English (Native/Bilingual) Mandarin (Native/Bilingual) French (Elementary) Russian (Coming soon...)

WORK EXPERIENCE

HULU (DISNEY STREAMING SERVICES) | SDE Seattle, WA | July 2019 - Present

- Developing a WebKit-based cross-platform browser engine in C++ and Java.
- Worked on the porting layer and OS abstraction for Linux, Windows, Mac OS and UWP.
- Took ownership over platform integrations such as voice control and native keyboards.
- Designed and implemented a memory tagging system and a memory pressure handler.
- Deployed app to over **7 million** unique devices ranging from Fire TV to Xbox One.

CARNEGIE MELLON UNIV. | TEACHING ASSISTANT Pittsburgh, PA | Fall 2018

• Held office hours/exam review sessions and graded for Complexity Theory.

HULU | SOFTWARE ENGINEERING INTERN

Seattle, WA | Summer 2018

• Designed a graph model and wrote a Spark job in Java to populate a graph database (Neo4j) for user path analysis. Deployed on Docker containers on a cluster of servers.

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 system for Low-Power WAN devices using Angular.
- Helped develop and support a REST API that interacted with devices.

PROJECTS

RECIPE RECOMMENDATION APP Entrepreneurship competition | Spring 2021
Built a cross-platform mobile app to recommend recipes using Flutter and Firebase.

YELP RATING PREDICTION

• Lead a team of 3 to query, parse and analyse restaurant data, then train on ML models.

MUSIC GENRE CLASSIFICATION

- Parsed midi data, extracted features and trained on ML models (ANN, SVM).
- 75% test accuracy over 15 classes. **12 stars** on GitHub.

WEB DEVELOPMENT

• Designed and developed over 20 websites/web apps, using stacks and frameworks ranging from MEAN and MERN to Meteor, Django and Jekyll.

EXTRACURRICULAR ACTIVITIES

Student Orgs | 2015 - 2018 | Archery Club, Parkour Club, and Bollywood Dance Team. Music | 2001 - Present | Play, compose and improvise on the piano, saxophone and bass with classical and Jazz music. Trying to learn as many instruments as I can. Volunteering | 2019 - Present | Tutoring @ Ada Developers Academy, teaching gender diverse communities computer science and software engineering.

Group Project | Spring 2018 ata, then train on ML models.

Personal Project| Spring 2018

Hobby | 2012 - Present