Ruiran Xun

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#### Education

## Carnegie Mellon University

Pittsburgh, PA

B.Sc. Chemistry, Additional Major in Computer Science

May 2022

- <u>Relevant courses:</u> Principles of Imperative Computation, Introduction to Computer Systems,
   Principles of Functional Programming, Great Ideas in Theoretical Computer Science
- Planned courses in Fall 2020: Parallel and Sequential Data Structures and Algorithms,
   Software Foundations of Security and Privacy, Foundations of Programming Languages

## Work Experience

### Network Medical Management

Alhambra, CA

Software Engineer Intern

June 2020 — present

- Designed and implemented a full-stack web portal from scratch for use by physicians
- Collaborated with business users and executives to add functionalities relevant to end users
- Utilized Bootstrap/jQuery/JsRender for front-end and Flask/SQLAlchemy for back-end

# Carnegie Mellon University School of Computer Science

Pittsburgh, PA

Lead Teaching Assistant (15-122: Principles of Imperative Computation) August 2020 — present

- Manages course logistics and infrastructure in order to ensure the course runs smoothly
- Coordinates a team of 30+ teaching assistants and onboards new teaching assistants

#### Carnegie Mellon University School of Computer Science

Pittsburgh, PA

Teaching Assistant (15-122: Principles of Imperative Computation)

August 2019 — present

- Assists in teaching code correctness, data structures, and algorithms to over 500 students
- Leads labs and recitations, facilitating a collaborative environment for student learning
- Guides student understanding of concepts and assignments one-on-one during office hours

Expii, Inc. Pittsburgh, PA

Content Writing Intern (Mathematics)

September 2018 — May 2019

- Created and moderated educational content targeted towards high school students
- Authored engaging problems, solutions, and explanations for topics in algebra and geometry
- Assisted in creation of mathematics curricula based upon existing pedagogical research

#### **Projects**

• Personal Website

2020

- Created responsive design using Bootstrap Studio, then fine-tuned the HTML and CSS
- Deployed to GitHub Pages through a custom domain and secured using Comodo PositiveSSL

• FoodMood 2020

- Successful final round application submission to Capital One's Software Engineering Summit
- Utilized Bootstrap, Esri's ArcGIS API, HTML5 Geolocation, and the Yelp API

#### • Cleversign: A Real-Time American Sign Language Interpreter

2018

- Built a classifier that outputs English letters given visual webcam input of ASL hand signs
- Retrained Google's Inception-V3 convolutional neural network (CNN) using TensorFlow
- Utilized OpenCV for image preprocessing, i.e. isolating shape of the hand in each frame

# Leadership

## **CMIMC Organizing Team**

Pittsburgh, PA

Logistics Officer

May 2019 — April 2020

- Oversaw the operations of the Carnegie Mellon Informatics and Mathematics Competition
- Coordinated scheduling of 400+ high school participants over multiple rounds of competition

#### Skills

- Languages: C, Java, Python, SML, LATEX, HTML, CSS, Javascript, SQL
- Libraries/Frameworks: Bootstrap, Flask, jQuery, SQLAlchemy
- Tools: Bootstrap Studio, Adobe XD, Adobe Lightroom