xun.ruiran@gmail.com

Education

Carnegie Mellon University

Pittsburgh, PA

B.Sc. Chemistry, Additional Major in Computer Science

May 2022

 <u>Relevant courses:</u> Principles of Imperative Computation, Concepts of Mathematics, Matrices and Linear Transformations, Great Ideas in Theoretical Computer Science, Probability

Work Experience

UPMC Enterprises

Pittsburgh, PA

Software Engineering Summer Associate

 $starting\ June\ 2020$

- Will work on projects with portfolio companies focused on directly improving patient care

Carnegie Mellon University School of Computer Science

Pittsburgh, PA

- Lead Teaching Assistant (15-122: Principles of Imperative Computation) starting August 2020
 - Will manage course logistics and infrastructure in order to ensure the course runs smoothly
 - Will coordinate a team of 30+ teaching assistants and onboard 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; secured using Comodo PositiveSSL

• FoodMood 2020

- Web application built for the final round of 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

Scotch'n'Soda Theatre

Pittsburgh, PA

Secretary (Board of Directors)

May 2019 — May 2020

- Oversaw production of six to seven shows per academic year by over 200 active members
- Communicated key events and information to general membership weekly through emails
- Connected with members of current productions to proactively identify and remedy conflicts

Skills

- Coding: C, Java, Python, Mathematica, LATEX, HTML/CSS, Javascript
- Language: Fluent in English and Chinese, conversant in Spanish
- Other: polymer chemistry research, collaborative piano, photography, digital media editing