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Yongyi Zhao
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Education

Carnegie Mellon University, Pittsburgh PA.
Bachelor of Science in Electrical and Computer Engineering
Overall QPA: 3.89/4.00

May 2018

Work Experience

Teaching Assistant (TA), 15-112 at Carnegie Mellon University

Aug 2016 – Dec 2016
Pittsburgh, PA

- Lead recitation of 20 students, weekly lecture to review and deepen students' understanding
- Perform course logistics: grading, tutoring at office hours, leading review sessions

Software Engineering Intern, Schrödinger LLC

June 2016 – Aug 2016
New York City, NY

- Developed GUI's for panels in Schrodinger's Material Science and FEP+ software suites
- Wrote script to calculate protein solution properties

Resident Assistant (RA), Carnegie Mellon University

Aug 2015 – May 2016
Pittsburgh, PA

- Served as a student mentor and advisor for 28 residents, responsible for housing-related events
- Increased first-year engagement on campus by scheduling and implementing dorm events

Research Assistant, Carnegie Mellon University

Oct 2014 – Present
Pittsburgh, PA

- Synthesize and characterize gold nanoparticles in chiral sensing/separation
- Establish procedure for reproducible production of faceted gold nanoparticles

Projects

Script for Calculating Properties of Protein Solution

June 2016 – Jul 2016

- Wrote python script which ran APBS calculations over millions of protein configuration
- Wrote script in parallel on Schrodinger's Jobcontrol framework because of volume of configurations

Synthesis and Characterization of Photoluminescent Quantum Dots

Jan 2016 – May 2016

- Analyze and establish properties of synthesized quantum dots
- Collect analyze data with applications in solar cells, diodes, and sensors

Racing Simulation using OpenCV Motion Detection

April 2015

- Presented as one of top 15 projects (of ~400 students) for 15-112 Spring 2015 Course
- For a general overview: <https://www.youtube.com/watch?v=HXx1ZZWuIXs>

Awards & Scholarships

Semiconductor Research Corporation Scholarship
CMU Summer Undergraduate Research Fellowship
National Merit Scholarship Finalist
Siemens Science Competition Semifinalist

Dec 2015
May 2015
May 2014
Oct 2013

Skills

Programming/Computing:

- **Strong:** Python, C; **Proficient:** C++, Matlab, Linux; **Limited:** Version Control (Git), Qt

Languages: Fluent in English and Chinese (Mandarin), working proficiency in Spanish

Relevant Coursework

- 15-462: Computer Graphics
- 18-349: Introduction to Embedded Systems
- 18-240: Structure and Design of Digital Systems
- 18-491: Fundamentals of Signal Processing

Activities

Mentor, Higher Achievement

Oct 2014 – Present

- Tutored group of 2-5 middle school students in project design and scientific method
- Created and implemented projects to teach programming and experimental design

Writer, the Odyssey Online

Jan 2016 – Apr 2016

- Contribute weekly articles regarding recent news or short stories (10 articles in total)
- <http://theodysseyonline.com/author/yongyizhao>