Jimmy Shi

jimmyshi360@gmail.com (609) 216-0130 Baltimore, MD mshi22/ jshi22

Education

Johns Hopkins University, GPA: 4.0/4.0 Dean's List
B.S. Computer Science, Graduation May 2022
Relevant Coursework: Intermediate Programming in C & C++, Data Structures, Differential Equations and Applications
Competitive Programmer in the ICPC and USACO contests. Game developer hobbyist and interested in robotics and locomotion.

Experience

Skills: (Proficient) Java, Python, Unix, Git, React, HTML, CSS/SASS, Agile (Familiar) C++, JavaScript, NodeJS, C#, Redux, Bash, Confluence/JIRA

Semester.ly - Full Stack Software Engineer Intern Jan. 2019 - Current
- Fullstack developer implementing new features for the open-source course-scheduling platform and helping deliver thousands of anticipated schedules in Fall 2019 and Spring 2020 (React, Redux, JavaScript, HTML & CSS, Adobe Photoshop, Python, Unix, Docker, Git)
- Implemented a new robust course search sorting algorithm with Python, increasing search relevancy and drawing very positive feedback from users
- Designed a data migration schema with the JHU IT department, using their API to migrate new data to the Semester.ly database for incoming features
- As a graphic designer, I taught other interns frontend design with React, Redux, HTML and CSS, pushing several visual enhancements to the repo

UC Irvine, Cancer Research Institute, Nelson Lab- Freelance Aug. 2018 - Nov. 2018
- As an experienced competitive programmer, I taught a research fellow optimization techniques for image processing and memory management
- Transformed a proprietary command-line program to a full Java desktop application for processing image outputs of a new Micropallet Cell Array technology (Java, Swing, Image processing, Unix, CLI, Git)
- Increased image processing capacity by almost 6x through smart compression and dynamic memory management

Princeton University, Lewis-Sigler Institute for Integrative Genomics- Research Intern, *Dr. Olga Troyanskaya* June 2017 - Aug. 2017
- Researched and re-purposed statistical algorithms for gene over-representation analysis (Python, NumPy, SciPy, Multiprocessing, Unix, CLI)
- Built a multiprocessing framework from scratch speeding up tests like PAGE by 5x with CPU distribution command line arguments
- Contributed 7 statistical algorithms and unit tests in 1,500 lines of robust well-documented code to the graduate students' repo

Activities

Hackathon Organizer - HopHacks Website Team Dec. 2018 - Current
- Coordinated with the design team and co-designed the front page of the Spring 2019 HopHacks website, viewed by 450+ registrants, **https://hophacks.com/** (React, Javascript, HTML & CSS, MeteorJS)
- Assuming the role of Frontend Design Lead in the upcoming Fall Hackathon event

Board Member - Association for Computing Machinery Nov. 2018 - Current
- Worked with the WiCS President to integrate React into the ACM WiCS website, **http://wics.acm.jhu.edu/** (React, Javascript, HTML & CSS, Bootstrap, Git)
- Coordinating with the ACM Chair to plan and brainstorm events for increasing freshman engagement

Awards

HopHacks - 2nd Place/35+ teams ($512 prize) Sept. 2018

2016 National STEM Video Game Challenge Game Design Award ($3,000 prize) Oct. 2016

Programming Competitions (Using Java)
Nov 2018 - 4th Place/31 Graduate and Undergraduate Competitors (2nd Place Undergraduate) @ Bloomberg Codecon Qualifiers at JHU
Nov 2018 - 5th Place/15 teams @ ACM ICPC Mid-Atlantic Regional Contest, JHU Site
Jan 2017 - Platinum Division Qualifier, Top 10% @ USA Computing Olympiad

Additional MLH Hackathons (Using C#, Unity, Python, HTML & CSS, JavaScript and AWS)
Sept 2018 - Best Use of Google Cloud Platform, Most Baltimore Hack ($256 prize) @ HopHacks, Johns Hopkins University
Feb 2017 - Best Use of AWS, Assistive Tech Track ($500 prize) @ HackNYU, New York University
Nov 2016 - DreamItReel Award @ InventYU, Yeshiva University
May 2015 - Best Mobile App @ HackMHS II, Millburn High School

Projects (https://github.com/jshi22)

Charm City Murals, winner of HopHacks 2nd Place ($512 Prize) Fall 2018
https://github.com/jshi22/Charm-City-Murals
- A webapp for exploring Baltimore murals through Augmented Reality and Machine Learning using Python (frontend developer and team lead)

Radiant, winner of the National STEM Video Game Design team award ($3,000 Prize) Summer 2016
https://github.com/jshi22/Radiant
- Director of a massive RPG exploration video game developed at Carnegie Mellon University (C#, Unity Game Engine, Audacity, Adobe Creative Suite)
- Features physics based movement and smart enemy artificial intelligence

Pirate Maps, published on Google Play Fall 2017
https://play.google.com/store/apps/details?id=com.CSI.HSSPirateMaps
- Android building navigation app implementing a modified Djikstra's shortest path algorithm (C#, Unity Game Engine, Adobe Creative Suite)