# **NATASHA X. ORIE**

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# **EXPERIENCE**

# **MICROSOFT**

Incoming Program Manager Intern

July 2019

## UC RIVERSIDE NETWORKS LAB

**Undergraduate Researcher** 

Jan. 2019 - Present

- Surveyed the impact that distance and protocol stack complexity had on IoT device power consumption through a series of outdoor experiments with a Raspberry Pi
- Composed the data into graphs using Pyplot and Seaborn; co-authored the paper describing experimental procedure (submitted to the IEEE LANMAN 2019 conference)
- Currently implementing neural network models and measuring their performance & speed to identify the diminishing return threshold for NVIDIA GPUs

# **INKWELL**

Undergraduate Researcher

June 2018 - Present

- Refactored the testing infrastructure for UCR's Microfluidic Continuous-flow Framework into an object-oriented design, which allows for more flexibility when selecting and running tests
- Enhanced the user experience by utilizing the Unix utility method to allow for individual test selection and execution, cutting down on the time spent waiting for tests to execute and allowing a deeper look into the evaluations for finding a pass/fail
- Currently strengthening the algorithm for creating planar drawings of microfluidic devices

# PROJECTS & LEADERSHIP DEVELOPMENT

WRAPPED, Developer

Jan. 2019 - Mar. 2019

- Developed a gifting service that allows users to track gift ideas and set email reminders for purchasing/sending gifts
- Implemented the front-end using React; handled the UI/UX design and used Adobe Illustrator to create graphics for the web app

### SHOOM (HACKUCI 2019 PROJECT), Developer

Spring 2019

- Developed an optimized search engine for students to streamline results into different categories
- Devised the algorithm to get results with the Google Search API, streamline results with keywords, and separate results into different categories (videos, forums, official documentation, etc.)

### MANGOMOUSE, Software Design Lead

Dec. 2017 - May 2018

- Worked with a student-led team to design and build an autonomous maze-solving robot for competition
- Exercised full creative control over writing the search algorithm in C, based on depth-first/breadth first search and Dijkstra's algorithm
- Awards: 1st at UCR's Micromouse Competition, 3rd at UCLA's IEEE Regional Competition, prize for "Most Cells Traversed" at UCLA's All American Micromouse Competition and UCSD's Micromouse Competition

## WOMEN IN COMPUTING (ACM-W), Active Member

Dec. 2017 - Present

- Supported younger students by acting as a mentor and aiding in their educational and professional development, as well as supporting their involvement on campus
- Spoke on a panel about my experience as an undergraduate researcher in order to present new opportunities to fellow students looking to gain experience outside of school

SKILLS & COURSEWORK

PROGRAMMING LANGUAGES: C++, Python FRAMEWORKS AND TOOLS: Git, React, Unity FOREIGN LANGUAGE: Chinese (Mandarin)

SOFTWARE: Adobe Illustrator, Framer, After Effects, Wireshark

COURSEWORK: Machine Learning and Data Mining, Artificial Intelligence, Operating Systems,

Computer Networks, Virtual Reality, Computer Security, Information Retrieval

**EDUCATION** 

University of California, Riverside Computer Science, B.S.

Dec. 2019