

# Shun Rao

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## education

### University of Waterloo

Bachelor of Software Engineering Candidate

Waterloo, ON

Sept 2017 - Present

## experience

### Team Waterloop

*Communications Systems Engineer*

Waterloo, ON

Sept 2017 - Present

- Working with UW student engineers to build a better, faster Hyperloop Competition 3 pod
- Designing a reliable and low-latency UDP communications pipeline in Go to relay critical pod data

### dominKnow Learning Systems

*Software Developer*

Ottawa, ON

Jun 2016 - Aug 2017

- Developed full stack e-learning & authoring solutions in Java for corporate clients.
- Drafted and wrote efficient cloud authoring version control system using JSON diff comparison
- Led the development of a HTML5 asset editor with ColdFusion server logic and JS canvas manipulation.
- Built an automated LESS theming engine and implemented optimizations to increase compilation speeds by 500%

### University of Ottawa Heart Institute

*Development Lead*

Ottawa, ON

Feb 2016 - Feb 2017

- Led iOS development of MOC Pager, an application that prepares med students for residency by simulating situations involving surgical patients.
- Managed Firebase backend for secure cloud storage of responses
- Project presented at the Canadian Conference on Medical Education and the American Association of Surgical Education

## projects

### Finden

[devpost.com/software/finden](https://devpost.com/software/finden)

Node.js, React Native

Sept 2017

Massively multiplayer scavenger hunt platform built at Hack The North using IBM Watson Image Recognition API. Users compete on a global leaderboard by scanning target objects with their phone.

### Orpheus

[github.com/shunr/orpheus](https://github.com/shunr/orpheus)

Node.js, Python

Jul 2017

Interactive machine learning experiment that trains an online classification model to learn individual music tastes. Uses user feedback to 30-second Spotify previews to estimate likelihood of genre and track preference.

### Code Curator

[github.com/shunr/code-curator](https://github.com/shunr/code-curator)

Python

Mar 2017

Utility to intelligently crawl contest sites and generate indexed repositories of personal code submitted to competitive programming platforms.

### Greedy Snek

[github.com/shunr/greedy-snek](https://github.com/shunr/greedy-snek)

C++

Nov 2015

SFML based "snake" game against aggressive AI with greedy pathfinding

## accomplishments

- 2017 Waterloo President's Scholarship of Distinction
- 2017 ECOO Programming Contest Eastern Ontario Champion
- 2017 CCC Certificate of Distinction
- 2016 Canadian Federation of Medical Students Student Initiative Grant
- 2016 CCC Certificate of Distinction
- 2016 Colonel By Coding Club Co-Founder
- 2015 TechU.me Ottawa AppJam Winner
- 2015 OSSTF Student Achievement Awards, Provincial Winner

## skills

### Languages

C++, Python, Java, Javascript, C, Go

### Frameworks/Tools

Node, Git, MongoDB, Angular, Mercurial, Jira, ColdFusion, Firebase, jQuery

### Other

HTML5, CSS3

## interests

Distance running, hackathons, contest programming, guitar

## contact



<http://srao.me>



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