

# Ashwin Srinivasan

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## Education

### Carnegie Mellon University

BS in Computer Science

Minors: human-computer interaction,  
software engineering

May 2022, QPA: 3.59

#### Relevant coursework:

- 15-213 Introduction to Computer Systems\*
- 10-315 Introduction to Machine Learning\*
- 15-210 Parallel and Sequential Data Structures and Algorithms
- 17-214 Principles of Software Construction
- 15-251 Great Ideas in Theoretical Computer Science
- 19-101 Introduction to Engineering and Public Policy

#### Teaching:

- 15-150 (Spring 2020)
- 15-122 (Fall 2019)

### Taylor Allderdice High School

May 2018, GPA: 4.0

## Skills

#### Languages:

Javascript, HTML, CSS, Python, Java,  
Bash, C

#### Technologies:

Git, Linux, Express, Django, React,  
Angular, Bootstrap, MongoDB,  
PostgreSQL, Redis, Jenkins

## Volunteering

### East Liberty Presbyterian Church

Tackling food insecurity in low-income regions of Pittsburgh

### Allderdice High School

Math peer tutoring

## Experience

### Research Assistant, Diderot

Sep 2019 – Present

Working on learning management system at CMU to make education social and interactive. Developing analytics component with *Python* + *Django*.

### Software Engineering Intern, Broadcom

May 2019 – Aug 2019

Contributed to *Angular* frontend, *Kotlin* + *Spring* backend, and *Node.js* scalable server testing harness for the Mainframe Team Center as part of an agile team.

### Teaching Assistant, Leap@CMU

Jun 2015 – Aug 2016

Taught local high schoolers computer science in 7-week summer program.

### Research Intern, Carnegie Mellon University

Jun 2014 – Jun 2015

Designed and developed plugin to increase user awareness of online tracking.

## Projects

### CMULab: Secure check-in and scoring

Adopted *Node.js* + *MongoDB* web service for teachers to score class activities.

★ Adopted by 15-122 at CMU

### Flow: Real-time water consumption tracker

Created *Node.js* + *Redis* backend to predict water usage with ML algorithm.

★ 2nd place for Riot Games sponsor prize at HackCMU 2018

### Machine Learning Analysis of Judicial Records

Used *SciKit-Learn* library of *Python* web scraper to collect 12 million case records. Decision tree to predict future outcomes with 81.4% test accuracy.

### AwesomeBot

Built multi-purpose *Node.js* bot for managing over 10,000 online communities.

### ImgCap: Automated image captioning

On-the-fly computer vision system for blind users. Written in *Java* + *OpenCV*.

★ 1st place, PA Junior Academy of Science | 2nd place, Pittsburgh Science Fair

## Activities

### Google Tech Challenge

★ 1st place team overall, including timed coding challenges and logic puzzles

### Plaid Umbrella Project

Technical and software lead. Coordinated with electrical and mechanical teams to build umbrella dispenser network and *Node.js* + *MongoDB* backend system.

### The Tartan

Editor for SciTech section. Writing and editing articles, designing weekly paper.

### ScottyLabs

Gave introductory React talk at Web Dev Weekend 2018. Overhauled *Python* + *Flask* API to make printing accessible on-campus.