# 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:
- 10-315 Introduction to Machine Learning*
- 15-213 Introduction to Computer Systems*
- 15-210 Parallel and Sequential Data Structures and Algorithms
- 17-214 Principles of Software Construction
- 15-251 Great Ideas in Theoretical Computer Science

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

**Allderdice High School**
May 2018, GPA: 4.0

## Skills

**Languages:**
Javascript, Python, HTML, CSS (7 years), Bash, Java (6 years), C (3 years)

**Technologies:**
Git, Linux (7 years), React, MongoDB, Redis, PostgreSQL (3 years), Angular, Django (1 year)

## Volunteering

**East Liberty Presbyterian Church**
Tackling food insecurity

**Allderdice High School**
Math peer tutoring

## Experience

**RESEARCH ASSISTANT, DIDEROT**                          Sept 2019–Present

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

**SOFTWARE ENGINEERING INTERN, BROADCOM**                May–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 school students 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**

Developing *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 and *Python* web scraper to collect 12 million case records. Created decision tree to predict future case outcomes with 81.4% test accuracy.

**AWESOMEBOT**

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

**IMGCAP: AUTOMATED IMAGE CAPTIONING**

Generated image captions on-the-fly to aid blind users. Written in *Java + OpenCV*.
★ 1st place at PA Junior Academy of Science | 2nd place at Pittsburgh Science Fair

## Activities

**GOOGLE TECH CHALLENGE**                                Apr 2019

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

**PLAID UMBRELLA PROJECT**                               Sept 2018–Sept 2019

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

**THE TARTAN**                                           Sept 2018–Present

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

**SCOTTYLABS**                                           Sept 2018–Sept 2019

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