

# Ayush Garg

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## EDUCATION

### DUKE UNIVERSITY

Expected May 2024 | Durham, NC

Pursuing BS in Computer Science

GPA: 4.0/4.0

Robertson Scholar (Selective leadership program and full-ride merit scholarship)

#### Relevant Courses:

Data Structures and Algorithms

Computer Architecture

Activities: Undergraduate Research, Duke Applied Machine Learning, Rhydhun (Bollywood Dance Team)

### PEAK TO PEAK HS

May 2020 | Lafayette, CO

GPA: 4.0/4.0 (13 AP Courses)

SAT: 1560/1600; ACT: 35

#### Relevant Courses:

Multivariable Calculus

Differential Equations

Leadership: Reading Buddies (Founder), Environmental Club (Founder), Science Olympiad (Captain), Debate (Captain, TA), NHS (Council)

## SKILLS

#### Intermediate:

- Java
- Python (& Flask Web Framework)
- React
- React Native
- HTML
- CSS

#### Novice:

- C
- Javascript
- Redux Library
- Bootstrap
- SQL
- Figma & Framer (UI/UX Prototyping)
- Jest and Enzyme Testing for React

Languages: English • Spanish • Hindi

Certifications: Responsive Web Design Developer (300 coursework hours) [View](#)

## HACKATHONS

• PennApps XXI (Created educational tool to learn about the world's geography) [View](#)

Award: Best Use of Wolfram Technology

• IDEATE: A Virtual Designathon (Prototyped a digital healthcare solution for nurses during COVID-19) [View](#)

## EXPERIENCE

### PROJECT BECK | WEB & MOBILE DEVELOPMENT LEAD

June 2020 - Present | Virtual

- Implementing cognitive-behavioral therapy assistance for people with depression through an app built using React Native and cloud-hosted Firebase
- Leading a team of 15 developers in building the company's web portal

### WOTO | BACK-END SOFTWARE ENGINEER

Sept 2020 - Present | Durham, NC

[View App](#)

- Incorporating real-time communication between front- and back-end processes for a web app that helps professors manage virtual office hours

### FIND SURGICAL SCIENCES | SOFTWARE ENGINEERING INTERN

Nov 2020 - Jan 2021 | Virtual

- Developing web-based tools that integrate neuroimaging data to currently improve surgical planning and execution in Massachusetts General Hospital

### BETSOL | SOFTWARE ENGINEERING INTERN

May 2018 – Aug 2018 | Denver, CO

[View Research](#)

- Conducted and presented research to CEO and company executives on potential applications of blockchain technology for healthcare clients

### ACE SPORTS | TENNIS LEAD COACH

June 2017 – Aug 2018 | Westminster, CO

- Supervised 4 assistant coaches and taught weekly 3-hour lessons to 50+ kids

## RESEARCH

### NICHOLAS SCHOOL OF ENVIRONMENT | CS & STATISTICS RESEARCHER

Aug 2020 – Present | Duke University

[View Code](#)

- Building web & mobile dashboards that calculate COVID-19 transmission risks
- Assisting design of statistical modeling systems for infectious disease spread

### ATLAS INSTITUTE | AI & ML RESEARCHER

Aug 2018 – Apr 2019 | University of Colorado Boulder

[View Code](#)

- Defined a natural language processing (NLP) research project on how autonomous assistants can learn to interpret various prepositional phrases
- Developed 6 machine learning models using Python by scraping MTurk data sets and utilizing Vicon tracking software to conduct a human experiment

## PERSONAL PROJECTS

### SUDOKU WEB AND MOBILE APPLICATIONS

Python (Flask), Javascript (jQuery), HTML, CSS, React Native

[View Web App](#)

- Architected and created a Sudoku web application that allows users a customizable experience in which they can play and solve Sudokus
- Spearheaded the back-end Python backtracking algorithm and the Javascript/HTML needed for seamless user experience and interaction
- Constructed a related iOS/Android mobile app using React Native [View Mobile App](#)

### HELP-REQUEST CONTENT MANAGEMENT SYSTEM

PHP, SQL, AJAX, HTML, CSS

- Automated a system that allows students to request live help from a teacher
- Instituted password-protected back-end access for teachers and independent front-end access to a self-processing form for students