

# Aarya Bhatia

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## EDUCATION

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### University of Illinois

*Bachelor of Science in Applied Mathematics, Minor in Computer Science*

Urbana-Champaign, IL

*Aug 2020 – May 2024*

- GPA: 3.73
- The Dean's List: Spring 2022, 2023

## TECHNICAL SKILLS

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**Languages:** C/C++, Python, SQL, Bash, JavaScript, LaTeX, Go, Java

**Frameworks:** MongoDB, Node.js, Flask, Numpy, SFML, REST, OOP, GraphQL, React

**Tools:** Linux, Git, Vim, Docker, AWS (S3, EC2, AppSync), Postman, Grafana, Heroku, VS Code

**Interests:** Backend, Problem Solving, Software Testing, Automation, Systems and Networking

## EXPERIENCE

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### SDE Intern

*Amazon*

May 2023 – Aug 2023

*San Fransisco, CA*

- Developed an API in Ruby on Rails for the Goodreads featured article section.
- Developed GraphQL resolvers for AWS AppSync using VTL Templates.
- Developed React web components for a book preview modal for dynamic viewports.

### Course Assistant, CS 340: Introduction to Computer System

*University of Illinois*

Aug 2022 – Present

*Champaign, IL*

- Tutored 200+ students on system concepts and programming assignments in C and Python.
- Developed autograded and randomised questions on the Prairie Learn LMS

### Software Developer

*University of Illinois*

Jan 2023 – May 2023

*Champaign, IL*

- Worked with Dr. Angrave Lawrence on a research project to make education more accessible.
- Implemented a glossary system for I-Notes, a text-based format of video lectures generated by video captions.

### DevOps Intern

*Humantic AI*

Jun 2022 – Aug 2022

*Gurugram, India*

- Developed a Grafana monitoring dashboard with customized alerts on Email and Slack.
- Implemented a python plugin to expose application metrics to Prometheus.
- Developed shell script for continuous integration with Jenkins to deploy code on a remote server.

### Software Developer

*University of Illinois*

Mar 2022 – Dec 2022

*Champaign, IL*

- Develop custom WordPress themes and API with PHP for CyberGIS project websites
- Implemented Python scripts for automated testing of Jupyter notebooks on CyberGIS infrastructure.
- Implemented a web-based calendar in PHP and integrated it with the Google Calendar.

### Full-Stack Web Developer

*Aspire Impact*

May 2021 – Aug 2021

*Gurugram, India*

- Developed script to analyze survey responses to online behavioral assessments.
- Developed a full-stack website with Node JS for online assessments and report generation.

## PROJECTS

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### CS 438, Communication Networks Project | C

Jan 2023 – Mar 2023

- Implemented a high-performance polling-based server and a multithreaded client CLI program following the *Inter Relay Chat* network protocol using the RFC 1459 specification, in C language.

### CS 340, Intro to Computer Systems Project | Python, Flask

Mar – May 2022

- Implemented a microservice to generate and encode a random maze using Kruskal's disjoint set algorithm.
- Developed a middleware, caching, and validation services to manage many maze-generation servers.

### CS 225, Data Structures Project | C++

Dec 2021

- Parsed the Open Flight airport dataset to construct a graph data structure using C++ class templates.
- Implemented various algorithms such as BFS, DFS, Page Rank, Dijkstra and Kosaraju's algorithm to find optimal flight paths between airports, rank the airports by importance and discover the strongly connected components.