

Aarya Bhatia

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EDUCATION

University of Illinois

Bachelor of Science in Applied Mathematics, Minor in Computer Science

Urbana-Champaign, IL

Aug 2020 – May 2024

- GPA: 3.7
- The Dean's List: Spring 2022

TECHNICAL SKILLS

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

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

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

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

EXPERIENCE

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

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.