

Anushka Singh

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Education

University of Massachusetts Amherst

Expected Graduation: Dec 2022

BS in Computer Science

GPA: 4.0

Scholarships: Chancellor's Award - \$14k per year awarded to exceptional Out of State students at UMass Amherst
Grace Hopper Conference '21 Scholarship - awarded by UMass Amherst

Previous Coursework: Programming Methodology, Linear Algebra, Discrete Math, Computer Systems, Data Structure

Current Coursework: Algorithm, Artificial Intelligence, Computer Networks, Natural Language Processing

Work Experience

Software Engineering Intern

Software Services Delivery & Beyond

Jun'20 - Aug'20

- Developed serverless Lambda architecture using Amazon Web Services and Node.js for updating and making real time changes in database of users (hosted on DynamoDB) for a full stack virtual convention application.
- Integrated various features by using AWS Simple Notification Service, AWS Cognito for authentication and login, and AWS Simple Queue Service for displaying real time changes visible from updates made to DynamoDB data

Undergraduate Course Assistant

UMass Amherst

Sep '21 - Present

- Hosting office hours weekly to help 250+ students with the core Computer Systems course concepts (such as pointers, caching, and sockets), projects and coding assignments in C and Assembly.
- Assisting course staff with grading and rubrics for assignments, and bridging between the needs of students and the course content.

Undergraduate Research Volunteer

CS Theory Research Group, UMass Amherst

Jun '21 - Jul '21

- Implemented a Learned Cuckoo Filter data structure in Python to analyze the effect of using a classifier on the false positive rate and to lessen the space complexity of a Cuckoo filter.
- Researched Learned Index Structures and built mathematical model by studying preexisting Learned Bloom Filters and Cuckoo Filters, while shadowing a PhD mentor

Projects

Hav.IT (Founder and Developer)

Feb '20 - Present

Programmed a Mobile Application in Java using Android Studio, for college students to request emergency items from classmates by making use of their location and instant messaging.

- Won Best Use of Google Cloud at HackHer 413 Hackathon (Feb '20)
- Semi Finalist for the Innovation Challenge by the Isenberg School of Management for receiving an investment of up to \$65k in seed money.
- Integrated Firebase for authentication and messaging & programmed signup and login features

Social Insights (Open Source Developer, Google Developer Students Group)

May'20 – Aug'20

- Contributed to Social Insights, a big data project focused on sentiment analysis of political and social conversations on Twitter.
- Converted existing React.js frontend to Django to increase efficiency by having a purely Python based framework to better merge with the Natural Language Processing search engine written in Python.

Leadership and Activities

Treasurer, Association of Computer Machinery (UMass Amherst)

Mar'21 – Present

- Coordinated events, funding, marketing for the ACM special interest groups (Product Management, Machine Learning, etc)
- Created events & workshops to welcome students of all backgrounds, skill levels, majors into UMass' largest computing club

Collegian Correspondent, Massachusetts Daily Collegian

Apr'21 – Present

- Wrote articles for the Arts column of the newspaper which is circulated to 5000 readers

Skills

- **Programming Languages:** Java and Python (Advanced), C and JavaScript (Intermediate)
- **Technologies:** AWS Lambda, React, Google Cloud, Firebase, Git, Flask, Django, NoSQL Databases, Jupyter Notebooks