Varun Ritesh Gandhi

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EDUCATION

University of Massachusetts Amherst

Bachelor of Science in Computer Science, minor in Mathematics and Business (GPA: 3.89) **Jan 2021 – 2024**

Distinctions: Dean's List Honors, Chancellor's Award Scholarship ($56,000)

Coursework: Software Engineering, Data Structures, Algorithms, Programming Methodologies, Operating Systems, Artificial Intelligence, Big Data Processing*, Computer Networks, Probability and Statistics, Discrete Mathematics, Abstract Algebra*

SKILLS

Languages: Python, JavaScript, TypeScript, Java, C/C++, HTML, CSS, SQL, Kotlin, Bash

Frameworks and Libraries: React.js, Node.js, Flask, Bootstrap, Django, jQuery, Express.js, Mongoose, Pandas, NumPy

Cloud and Tools: Google Cloud, AWS, Microsoft Azure, Terraform, Git, Docker, MongoDB, MySQL, Unix/Linux, Agile, Postman

Certifications: The Complete Web Development Bootcamp (Udemy), Software Engineering Virtual Experience (JP Morgan)

EXPERIENCE

Adani Group Cloud Software Engineering Intern May 2023 – Present

- Automated the identification of idle resources in Adani's Google cloud infrastructure by leveraging Google cloud APIs.
- Utilized MySQL DB to store the responses from the API calls and developed a dashboard to visualize the collected data.
- Achieved a cost reduction of 35% by identifying and eliminating unused IP addresses, Persistent disks, and disk images.
- Developed scripts using Terraform to provision virtual machines, making deployment 50% faster than manual methods.

Duck Creek Technologies Software Engineering Apprentice Feb 2023 – May 2023

- Developed a time tracking platform for internal use of 1900+ employees from ground up in an agile team of 9 developers.
- Constructed the client-side in React.js, implementing methods for large-scale UI components that consumed served JSON.
- Programmed server-side logic for the portal using Node.js, and MongoDB and created auth tokens to make the site secure.
- Created 6 API endpoints and achieved a 95% success rate in handling concurrent requests with the help of Axios promises.

PROJECTS

UMassConnect – Social Media Website React.js, Node.js, Express.js, MongoDB, HTML/CSS, MUI, Docker

- Developed a full stack web application for the prospected use of 40,000+ students with the goal of a centralized website to curate and deliver content that is highly relevant to UMass students' academic pursuits, campus events, clubs, and interests.
- Implemented user authentication and authorization functionalities, resulting in ensured user privacy and a secure platform.
- Containerized the application and deployed it on Render, resulting in a 40% reduction in deployment time & 99.9% uptime.

FlickFinder – Movie Recommender System Python, Flask, Pandas, NumPy, HTML/CSS, Bootstrap, Docker

- Developed a web application using Flask to implement a collaborative filtering-based recommender system by creating a user-friendly interface that allowed users to input a movie preference and receive personalized recommendations.
- Used singular value decomposition to factorize the movie-user ratings matrix and cosine similarity to recommend movies.

Binary Buddy Memory Allocator (Link) C, C++, Makefile, Unix/Linux

- Created a memory allocator for Unix-like operating systems from scratch which made the use of recursive binary splitting and coalescing to achieve a memory allocation efficiency improvement of approx. 25% as compared to traditional methods.
- Designed a Binary Tree ADT and implemented recursive Depth First Search algorithms to locate available memory nodes.
- Improved build processes by incorporating a Makefile for automated compilation and testing, reducing deploy time by 5%.

The Simon Game (Link) HTML, CSS, JavaScript, jQuery, DOM

- Developed a single player memory game requiring players to accurately recall and select next color that flashes on screen.

LEADERSHIP & EXTRACURRICULAR

Manning CICS – Undergrad Teaching Assistant – Grade Assignments for the Operating Systems course and hold office hours.

Microsoft – Tech Resilience Program Participant – Paired with two engineers at Microsoft in a 6-week mentorship program.

UMass Residential Life – Peer Mentor – Build inclusive environment for freshmen, aiding academic transition to college.