

Aditya Vikram Singh

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EDUCATION

University of Massachusetts Amherst	GPA: 4.00/4.00	Aug 2019 - Dec 2022
Bachelor of Science in Computer Science and Mathematics (Statistics and Data Science)		Amherst, MA
<ul style="list-style-type: none">• Distinctions: Commonwealth Honors Scholar, Dean's List (All Semesters), Chancellor's Award Scholarship• Organizations: Software Developer @ BUILD UMass, Tech Developer @ HackUMass Organizing Team, Member @ UMass ACM• Coursework: Search Engines*, Data Management*, Software Engineering*[†], Algorithms[†], Artificial Intelligence, Computer Systems Principles, Probability Theory, Discrete Mathematics, Programming Methodology, Data Structures, Data Analysis in R, Linear Algebra, Multivariate Calculus, Statistics I		
		*: In-Progress , [†] : Honors

SKILLS

Languages: JavaScript, Java, Python, C, C++, R, SQL	Frameworks: React, Redux, Node.js, Express, Django, Flask, Bootstrap
Databases: MongoDB (mongoose), PostgreSQL, MySQL	Development: Git, Docker, SwaggerUI, Postman, Selenium, Agile, Scrum

EXPERIENCE

CICS @ UMass Amherst , Undergraduate Course Assistant	Amherst, MA (In-Person)	Aug 2021 - Present
<ul style="list-style-type: none">• Assist the instructor and TAs to help students taking CS 240 understand the principles and applications of Probability Theory• Grade homework assignments for 300+ students and provide constructive feedback to help students learn better• Respond to students' questions on Piazza promptly to explain core concepts and resolve doubts pertaining to course materials		
InnovationM Technologies , Software Development Intern	Noida, India (Remote)	Jun 2021 - Aug 2021
<ul style="list-style-type: none">• Developed a grievance redressal platform for internal use by 200+ employees from scratch, in a team of 2 JavaScript developers• Built the backend using Node.js with Express server and modelled the database layer using MongoDB through mongoose wrapper• Designed the frontend using React along with Redux state management and performed partial API integration of 10+ endpoints• Containerized the application using Docker for ease of deployment as a service in a microservice architecture framework		
Virtubox Infotech , Business Development Associate	Noida, India (Remote)	Jul 2020 - Aug 2020
<ul style="list-style-type: none">• Developed engineering workflows and prepared comprehensive suggestions for transition from Vue.js to React codebase for CMS• Worked on competitor analysis, keyword research, and image production, for app-store optimization of 5 client applications• Produced 10+ video tutorials explaining the functionality of the company's CMS dashboard, and published them on YouTube		

PROJECTS

Project URefer (github.com/suikac/compsci-320-team-5)	React, NestJS, MySQL	Sep 2021 - Present
<ul style="list-style-type: none">• Responsible for backend engineering of a job referral portal from scratch, as part of Software Engineering integrative experience• Performed knowledge transfer to 4 new frontend developers for React-based UI development and axios API integration from server• Presented updates and demonstrations of product features to client, working in an Agile Scrum workflow with 10 team members		
HackUMass Website (github.com/fuseumass/hackumass.github.io)	HTML, CSS, Ruby on Rails	Sep 2021 - Present
<ul style="list-style-type: none">• Revised and designed the HackUMass landing website with new functionalities and UI improvements, along with 10+ tech members• Developing new features and constraints in a Ruby on Rails framework for HackUMass Dashboard, and tackling unresolved issues• Refactoring repetitive elements by transitioning the landing page to a React framework for easier updates and greater abstraction		
Elementary Chatbot (github.com/AVS1508/elementary_chatbot)	Python, Rasa, spaCy	Jun 2021 - Aug 2021
<ul style="list-style-type: none">• Built a Rasa chatbot for Facebook Messenger using spaCy NLP components as a 12-week externship project with Sopra Steria• Tuned the chatbot to focus on 50+ COVID-19 specific queries and accordingly specified responses using Rasa's built-in interface• Created a 24-page report explaining the project's use cases and suitability for social good through natural language understanding		
Connect 383	Python	Feb 2021 - Mar 2021
<ul style="list-style-type: none">• Programmed gameplay agents in Python for 2-player adversarial search in an unbounded version of Connect 4 for a course on AI• Deployed recursive variants of complete minimax, heuristic-based finite-lookahead, and α-β pruning algorithms for optimal gameplay		
Perpetual Crusades (github.com/AVS1508/perpetual-crusades)	React, Bootstrap, CSS Grids	Sep 2020 - Sep 2020
<ul style="list-style-type: none">• Designed a medieval-themed dice board game with role-playing elements analogous to Dungeons and Dragons for PennApps XXI• Developed character selection menu, implemented randomized dice throw, and modeled dynamic board with game state notifications		