

# ADITYA VIKRAM SINGH

☎ (413) 437-6014 | ✉ [aditya.11.present@gmail.com](mailto:aditya.11.present@gmail.com) | 🌐 [www.adityavsingh.com](http://www.adityavsingh.com) | 📄 [github.com/avs1508](https://github.com/avs1508) | 🔗 [linkedin.com/in/avs1508](https://www.linkedin.com/in/avs1508) | 📍 Amherst, MA

## EDUCATION

UNIVERSITY OF MASSACHUSETTS AMHERST	GPA: 4.00/4.00	Aug 2019 - May 2023
BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND MATHEMATICS (STATISTICS AND DATA SCIENCE)		Amherst, MA
• <b>DISTINCTIONS:</b> Commonwealth Honors Scholar, Dean's List (All Semesters), Chancellor's Award Scholarship		
• <b>ORGANIZATIONS:</b> Event Co-Director and Director of Technology at HackUMass Organizing Team, Director of Technology at UMass CICSoft, Technical Lead at BUILD UMass		
• <b>COURSEWORK:</b> Data Structures, Algorithms <sup>†</sup> , Programming Methodologies, Computer Systems, Software Engineering <sup>†</sup> , Database Management, Search Engines, Information Retrieval <sup>*</sup> , Machine Learning <sup>*</sup> , Regression Analysis <sup>*</sup> (*: In-Progress, †: Honors)		

## SKILLS

<b>LANGUAGES:</b> Python, JavaScript, Java, C/C++, R, SQL	<b>FRAMEWORKS:</b> React, Redux, Node.js, Express, Django, Flask, Bootstrap
<b>DATABASES:</b> MongoDB (mongoose), PostgreSQL, MySQL	<b>DEVELOPMENT:</b> Git, Docker, SwaggerUI, Postman, Selenium, Agile, Scrum

## WORK EXPERIENCE

MANNING COLLEGE – UNDERGRADUATE COURSE ASSISTANT	Amherst, MA (In-Person)	Aug 2021 - Present
• Facilitating students taking CS 240 to understand the principles and applications of Probability Theory in Computer Science		
• Grading homework assignments for 300+ students and providing constructive feedback to aid students in employing better strategies		
• Responding to students' questions on Piazza to clarify core concepts and resolve doubts regarding the course materials		
INNOVATIONM TECHNOLOGIES – SOFTWARE DEVELOPMENT INTERN	Noida, India (Remote)	Jun 2021 - Aug 2021
• Developed a grievance redressal platform for internal use by 200+ employees from scratch in a team of 2 JavaScript developers		
• Engineered the backend using Node.js + Express server and modeled the database layer using MongoDB through mongoose wrapper		
• Programmed 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
• Composed engineering workflows and prepared 10+ comprehensive suggestions for a transition from Vue.js to React codebase for CMS		
• Carried out 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 for publishing on YouTube		

## PROJECTS

PROJECT UREFER ( <a href="https://github.com/suikac/compsci-320-team-5">github.com/suikac/compsci-320-team-5</a> )	REACT, NESTJS, MYSQL	Sep 2021 – Dec 2021
• Engineered the backend functionality 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, operating in an Agile Scrum workflow with 10 team members		
HACKUMASS WEBSITE ( <a href="https://github.com/fuseumass/hackumass.github.io">github.com/fuseumass/hackumass.github.io</a> )	HTML, CSS, RUBY ON RAILS	Sep 2021 – Nov 2021
• Overhauled the HackUMass IX landing website with new functionalities and UI improvements, along with 7 tech team members		
• Implemented new features and constraints in Ruby on Rails framework for HackUMass Dashboard, and tackled 3 unresolved issues		
• Refactored repetition in 5 sections by transitioning the landing page to a React framework for easier updates and greater abstraction		
ELEMENTARY CHATBOT ( <a href="https://github.com/AVS1508/elementary_chatbot">github.com/AVS1508/elementary_chatbot</a> )	PYTHON, RASA, SPACY	Jun 2021 – Aug 2021
• 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 elaborating on the project's use cases and suitability for social good through natural language understanding		
CONNECT 383	PYTHON	Feb 2021 – Mar 2021
• 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 $\alpha$ - $\beta$ pruning algorithms for optimal gameplay		
PERPETUAL CRUSADES ( <a href="https://github.com/AVS1508/perpetual-crusades">github.com/AVS1508/perpetual-crusades</a> )	REACT, BOOTSTRAP	Sep 2020 – Sep 2020
• Designed a medieval-themed dice board game with 15+ role-playing elements analogous to Dungeons & Dragons for PennApps XXI		
• Developed character selection menu, implemented randomized 6-face dice throw, and modeled board with real-time state notifications		