

Siddhi Kasera

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Attendee, Grace Hopper Celebration (GHC) 2024

EDUCATION

Master of Engineering in Computer Science

Virginia Tech, Expected Graduation: May 2025 | GPA: 3.90

Courses: Cloud Computing, Usability Engineering, Software Engineering, Web Development, Software Management

B.S. in Computer Science, Minor in Business Administration

Rutgers University, Graduated: May 2021

Courses: Operating Systems, Software Methodology, AI, Algorithms, Databases, Data Structures

TECHNICAL EXPERIENCE

Graduate Research Assistant at Virginia Tech | January 2024 - Present

- Review, summarize, and analyze research papers to identify common themes and issues related to teaching **Parallel Distributed Computing** concepts to undergraduate and high school students.
- Developed a mini-game to teach **Parallel Distributed Computing** concepts in **Unity in C#**.

Software Engineering Intern at Crohn's and Colitis Foundation | September 2021 – March 2022

- Successfully reduced costs by 45% by implementing **multi-cloud application deployment** on **AWS** and **Salesforce**.
- Contributed to outlining the microservices architecture, and infrastructure for the **Solution Architecture** and **Infrastructure Master Document**.
- Collaborated closely with project managers and fellow engineers to ensure timely completion.
- Led the design of an efficient management tool and a website to streamline project tracking to increase team productivity by 30%.

Java Production Support at Genpact | April 2022 – January 2023

- Managed updates for web application clients using **Rational Application Developer (IDE)**.
- Successfully integrated branding changes via **Java** and **JavaScript** enhancements for clients like CVS.
- Collaborated with QA and backend teams for test case designs.
- Implemented a logging mechanism using **Log4j** for log generation in **Java** and **JavaScript**, increasing efficiency by 20%.

TECHNICAL PROJECTS

Stocks Portfolio Management Platform - TradeMinds Playground (JavaScript, React, Material UI, SDLC, Agile, Git, ExpressJS, NodeJS)

Developed and implemented a comprehensive financial management platform to give users actionable insights and recommendations for top-gaining stocks. The platform facilitates informed decision-making, portfolio diversification, and the maintenance of a balanced and profitable investment portfolio.

- Set up the frontend workspace structure using **ReactJS** and developed the sign-in and registration page **Material UI**, integrating **Formik** for seamless validation of user inputs.
- Set up the backend server using **Express/NodeJS** and configured the database, including **MySQL** models and table relationships.
- Implemented **RESTful APIs** for user functionalities such as login, signup, and user watchlist and deployed the frontend on **Amplify CI/CD** and backend on **AWS RDS**.
- Implemented caching to improve API performance by 10%.

Online BookStore Web Application (TypeScript, React, MySQL, AWS Lambda, AWS RDS)

*Created and executed an online bookstore platform, allowing users to purchase books from an extensive collection developed a set of serverless functions using **AWS Lambda** to handle **REST API** endpoints.*

- Designed the application interface using **Figma**, prioritizing user-centric design principles.
- Developed a single-page application with **React**, employing the **useState** hook for efficient state management and used the **useEffect** hook to orchestrate **Axios** calls.
- Created and managed a **MySQL** database to support robust data storage and retrieval for the application.
- Enhanced data retrieval from the database using **MySQL** queries by 5% optimization.
- Developed serverless functions using **AWS Lambda** and managed them for various endpoints.

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, TypeScript, Python, C

Web Development Tools: React, HTML, CSS, Material UI, Figma, Formik, NodeJS, ExpressJS

Database and Cloud Services: MySQL/RDBMS, MongoDB, Amazon Web Services (AWS), AWS EMR

Development Tools: Agile Software Development, Android Development, Scrum, Kanban, Notion, Git, Postman, Microsoft Office Suite.

PUBLISHED PAPER

Kasera, S., Mondal, S., & Cameron, M. (2024). Web-based PDC Educational Video Games. In Proceedings of the XXth ACM Technical Symposium on Computer Science Education (SIGCSE 2024), ACM, New York, NY, USA.

PROFESSIONAL CERTIFICATES

AWS Cloud Practitioner IBM Data Warehouse: Introduction to Data Engineering Google Certificate: Prepare Data for Exploration

LEADERSHIP EXPERIENCE

Peer Tutor and Mentor, Tech Array Advancing Women in Computer Science, New Brunswick, NJ | January 2021 – May 2021

- Tutored and mentored students in Java for Introduction to Computer Science and Data Structures.
- Organized and conducted instructional workshops covering various technologies like Flask, React, and Django.
- Guided students in troubleshooting, debugging code issues, fostering skill development, and project success.
- Oversaw and maintained effective communication with the division executive board ensuring smooth operations and collaboration.