AVINASH AMUDALA

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EDUCATION

Rochester Institute of Technology, Rochester, NY - **MS, Software Engineering (GPA - 3.73/4)**   **Aug 2024**
Relevant Courses: Data Structures and Algorithms, Software Engineering Principles using OOP, Application Development, Database Design and Implementation, Cloud Software Systems (AWS), and more.

Amrita Vishwa Vidyapeetham, Coimbatore, India - **BE, Electronics and Communication Engineering**   **Jun 2022**

EXPERIENCE

Software Engineer Co-op, Rochester Institute of Technology, Rochester, NY   **Dec 2023 – Present**
- Led the migration of critical university applications to Kubernetes, focusing on scalability and operational efficiency in a cloud-native environment. Utilized Azure Kubernetes Service (AKS) to ensure seamless deployment and management, aligning with industry best practices for cloud scalability and security.
- Collaborated closely with cross-functional teams in an Agile/Scrum setting, delivering features iteratively and ensuring high-quality software development through continuous integration and deployment (CI/CD) pipelines.

Full Stack Web Developer, MAGIC Spell Studios, RIT, Rochester, NY   **May 2023 – Aug 2023**
- Pioneered the Compass project, leveraging Azure Services to develop a 3D viewing platform for product visualization. Transformed Figma designs into dynamic web prototypes, focusing on user experience and performance.

Junior Software Developer, Ericsson India Global Services Pvt., Bangalore, India   **Feb 2022 – Aug 2022**
- Developed software solutions using languages such as Java, Python, and SQL, demonstrating proficiency in problem-solving and effective collaboration. Contributed to MySQL database development and improved software delivery through a Jenkins, Ansible, and Git-based CI/CD pipeline.

PROJECTS

AWS-Based University Review Analysis System   **Aug 2023 – Dec 2023**
- Developed a sentiment analysis and recommendation platform using AWS techs and Python. Integrated GPlaces API with AWS Lambda for extracting university reviews, utilized Amazon Comprehend for analysis, and employed AWS Amplify and Amazon Personalize for an intuitive interface and tailored recommendations. Insights with data visualization using Amazon QuickSight.

Scalable Cloud-Based E-Commerce Platform   **May 2023 – Jul 2023**
- Engineered a high-performance e-commerce solution using Python, demonstrating proficiency in cloud architectures by integrating both AWS and Azure services to achieve optimal performance and scalability. Implemented Azure SQL Database for relational data management and leveraged Azure App Services for web and API hosting. Demonstrated an agile project management approach by employing sprints, stand-ups, etc to adapt to changing requirements and deliver value incrementally.

Customizable E-store Web Application   **Apr 2022 – Jul 2022**
- Developed a scalable Ecommerce platform using Angular.js, JavaScript, HTML, CSS, and Spring Framework for backend services with the MS .NET framework, focused on high concurrency and responsive design. Integrated MS T-SQL with Postgres for advanced relational data management, demonstrating my ability to build scalable web applications with efficient database handling.

Personal Coffee-Making Robot Simulation (Java, AWS)   **Nov 2022 – Mar 2023**
- Developed a Java-based simulation of an autonomous coffee-making robot, utilizing AWS services for cloud-based data management and AI integration. Applied Docker for containerization and deployed using Kubernetes, demonstrating proficiency in cloud services deployment and microservice architecture. Implemented REST APIs and managed Linux server configurations.

Digital Forensic Analysis Tool   **Jan 2022 – Apr 2022**
- Developed a "Digital Forensic Analysis Tool" using Python to simulate the processing and analysis of digital evidence from IoT devices and smartphones, showcasing skills in data structures, algorithms, and cybersecurity relevant to digital investigations.

SKILLS

- **Programming Languages:** C, C++, Java, Python, JavaScript, TypeScript, R, SQL, PHP, HTML, CSS
- **Database Technologies:** MySQL, Postgres, MS T-SQL
- **Cloud Technologies:** AWS (EC2, RDS, S3, Lambda, Amplify, Route 53, IAM, CloudFront, CloudWatch), Azure, Terraform
- **Software, Tools & OS:** OpenCV, NodeJS, PyTorch, Linux, .NET, MS .NET Framework, Kubernetes, Docker, Apache Kafka, Redis, DynamoDB, Selenium, JUnit, Jenkins, Travis CI, Git, Angular, ReactJs, BASH Scripting, ThreeJs, Tableau, REST API development

CERTIFICATIONS & CONTINUING EDUCATION

- **Amazon Web Services (AWS) Certified Solutions Architect Associate**   **Oct 2023**
- **Oracle Certified Associate, Java SE Programmer**   **May 2023**
- **Amazon Web Services (AWS) Certified Cloud Practitioner**   **Nov 2022**
- **AZ-900 Microsoft Azure Fundamentals**   **Apr 2022**

COMMUNITY INVOLVEMENT

- **Tutor and mentor in the Society of Software Engineers at RIT, providing P2P guidance and support in SE concepts.**   **Ongoing**