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)

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

EXPERIENCE

Software Engineer Co-op, Rochester Institute of Technology, Rochester, NY   **Jan 2023 – Present**
- Led the development of a Transfer Credits application using Solr and Express server for SSR, enhancing data retrieval efficiency.
- Contributed to critical university applications (RIT eServices, Tiger Center, Campus Maps) ensuring optimal performance and user satisfaction. Collaborated with cross-functional teams in an Agile/Scrum environment to fix bugs and handle tickets.
- Developed and maintained enterprise web applications using Java, Angular, and PHP, focusing on enhancing user experience and security.

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**
- Engineered software solutions using C++, Python, PHP, and SQL, improving development efficiency and collaboration.
- Streamlined software delivery through CI/CD pipeline implementation using Jenkins, Ansible, and Git.
- Involved in LTE/NR protocol layers development, acquiring knowledge in 3GPP standards and wireless communication.

PROJECTS

Intelligent Cloud-Based Log Analysis Platform   **Mar 2024 – May 2024**
- Developed a sophisticated platform to parse and analyze AWS CloudTrail logs, using machine learning to predict and suggest fixes for common access issues.
- Implemented advanced analytics with AWS Lambda (Python), Amazon Comprehend for NLP, and Amazon SageMaker for predictive modeling, resulting in a 40% reduction in troubleshooting time.

AI-Powered University Review Insights System   **Aug 2023 – Dec 2023**
- Built an AI-driven system using AWS to analyze and derive insights from university reviews, integrating sentiment analysis and trend prediction.
- Utilized AWS Lambda (Python), Amazon Comprehend, and Amazon Forecast to provide actionable recommendations, enhancing decision-making for prospective students.

Scalable Microservices Architecture for E-Commerce   **May 2023 – Jul 2023**
- Designed and implemented a microservices-based e-commerce platform, ensuring high availability and fault tolerance using Kubernetes and Docker.
- Leveraged AWS Fargate for serverless container management, and implemented CI/CD pipelines with Jenkins and AWS CodePipeline for automated deployment, primarily using Java.

High-Performance Trading System   **Jan 2023 – Apr 2023**
- Developed a high-frequency trading system using C++ for core trading algorithms, ensuring low latency and high reliability.
- Integrated with financial data feeds using Boost and ZeroMQ, and deployed the system on AWS for scalable performance.
- Implemented advanced logging and monitoring with AWS CloudWatch, enhancing system reliability and fault tolerance.

Automated Machine Learning Pipeline for Financial Forecasting   **Nov 2022 – Mar 2023**
- Created an automated ML pipeline using AWS SageMaker (Python) for financial time series forecasting, incorporating feature engineering and model selection.
- Built a RESTful API with Flask for model deployment and utilized AWS Lambda for serverless execution, reducing forecasting errors by 30%.

SKILLS

- **Programming Languages:** PHP, HTML5, JavaScript, C#, C++, Java, Python, TypeScript, SQL, HTML, CSS
- **Database Technologies:** OracleDB, SQLServer, MySQL, Postgres, MS T-SQL
- **Cloud Technologies:** AWS (EC2, RDS, S3, Lambda, Amplify, Route 53, IAM, CloudFront, CloudWatch), Azure, Terraform
- **Software, DB, Tools & OS:** OpenCV, NodeJS, Linux, Kubernetes, Docker, Apache Kafka, Redis, DynamoDB, JUnit, Jenkins, Travis CI, Git, Angular, ReactJs, BASH Scripting, ThreeJs, REST API development, Agile (Scrum/Kanban), CI/CD, DevOps
- **Certifications**: AWS Certified Solutions Architect Associate, AWS Certified Cloud Practitioner, Oracle Certified Associate, Java SE Programmer, AZ-900 Microsoft Azure Fundamentals

COMMUNITY INVOLVEMENT

Tutor and Mentor, Society of Software Engineers at RIT
- Providing peer-to-peer guidance and support in software engineering concepts.