# Meghana Katraju

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## SUMMARY

Dynamic IT professional with over 4 years of experience in software engineering and a strong foundation in computer science. Proficient in backend engineering, cloud technologies, and full-stack development. Adept at developing high-performance web applications and implementing secure, scalable cloud solutions. Strong problem-solving skills with a focus on delivering reliable and efficient IT infrastructure.

## SKILLS

**Programming Languages** : Java, J2EE, JavaScript, Python, C, C++
**Full-Stack Development**: Spring, Spring MVC, Hibernate, HTML, CSS, Angular, React, Node.js
**Databases**: SQL Server, PostgreSQL, MongoDB.
**Cloud Technologies**: AWS, Azure, Google Cloud
**Tools & Technologies**: Jenkins, Docker, Maven, Gradle, Git, GitHub, JIRA
**Web Servers**: Apache Tomcat
**Testing**: Selenium, JUnit
**Methodologies**: Agile Development, Scrum
**Soft Skills**: Project Management, Leadership, Communication Skills
**Certifications**: AWS Cloud Foundation, Cisco Networking Essentials, Python for Data Science (IBM).
**Education**: BE/BTech in Computer Science, MS in Computer Science.

## EXPERIENCE

**Software Engineer**, **VERZEO** *Jun 2021 - Jul 2022*
- During my Full-time at Verzeo, I developed expertise in backend engineering, including designing and testing backend systems with Java and Spring.
- I have managed databases using MySQL or PostgreSQL, and build RESTful APIs for seamless communication between frontend and backend components.

**Cloud Foundation**, **AMAZON WEB SERVICES (AWS)** *Jan 2020 - Feb 2021*
- Designed and deployed web services (microservices) in an AWS Cloud Foundation internship, increasing scalability by 30% in 30 days.
- Built and optimized a VPC environment for secure communication, supporting over 500 concurrent users without performance degradation.
- Configured HTTPS certificates for Elastic Load Balancer (ELB), also enhanced system security by roughly 25% within an agile environment, reducing security incidents by 40%.

**Networking Essentials**, **CISCO** *Oct 2018 - Nov 2019*
- During my software engineering internship specializing in IPv4 and IPv6 address management and LAN configuration using Cisco devices.
- I have achieved a 20% increase in data transfer efficiency through algorithm development, also enhancing network security by 30% over 3 months via Cisco IOS configuration.

**Python for Data Science**, **IBM** *Oct 2017 - Aug 2018*
- Executed in-depth analysis of complex datasets utilizing advanced querying techniques in SQL and Python; identified trends and patterns leading to a 40% increase in customer retention rates.
- Evaluated various machine learning techniques for demand forecasting which resulted in a 15% improvement in the production efficiency over the internship duration.

## PROJECTS

**Identified fake profiles across online social networks with an algorithm developed in Python**
- Developed and trained neural network models for user behavior analysis, boosting fraud profile detection accuracy by 50% through advanced database management and preprocessing techniques.

**Road Lane Detection Using OpenCV and Python**
- Implemented road lane detection using OpenCV and Python, developing a system to analyze lane markings in real-time for autonomous driving applications with 95% accuracy.
- Involved image preprocessing, edge and line detection, and parameter tuning, processing 30 frames per second to accurately identify and highlight road lanes in images or videos.

**Designing Secure and Efficient Biometric-Based Secure Access Mechanism for Cloud Services**
- Led development of a biometric-based access mechanism for cloud services, enhancing security and efficiency with backend programming, achieving a 50% reduction in unauthorized access attempts.

- Implemented robust authentication using biometric data like fingerprints or facial recognition, increasing authentication speed by 40%. Integrated encryption and access controls for cloud computing, safeguarding sensitive data and improving security measures by 60%, exemplifying skills in software development.

**Schoolify: Program Coordination and Administration Application.**

- Led software development of the Schoolify application, a user-friendly platform that streamlines program coordination and administration tasks for educational institutions with agile methodologies.
- Employed a tech stack comprising React.js, HTML, and CSS for frontend development, alongside Node.js for backend, MongoDB for database management, and AWS for cloud services, emphasizing scalability and seamless integration.

**Asana Web Application Testing with Selenium Automation**

- Developed Selenium-based automated tests in Python to validate login functionality and task management features in the Asana web application, achieving 98% test coverage.
- Utilized unittest framework for test structuring and execution. Highlights include setup configuration, 50 login tests, task management validation, comprehensive logging, and cleanup procedures, reducing manual testing time by 75%.

**Solar Financing Dashboard**

- Created a user-friendly dashboard for solar financing using React and Node.js, enhancing user experience and operational efficiency by 30%.
- Integrated data visualization tools to present financial models and performance metrics clearly, which improved decision-making speed by 25% and increased user satisfaction by 20%.
- Enabled real-time updates and interactive features, reducing the time needed to generate reports by 40%.

## EDUCATION

**Masters**, Computer Science in Information Technology — *Aug 2022 - May 2024*
**University of Texas at Arlington** — GPA: 3.4
**Bachelors of Technology**, Computer Science and Engineering — *Jul 2018 - May 2022*
**Jawaharlal Nehru & Technology** — GPA: 7.5

## COURSES

**JAVA, CODETANTRA**

- Designed Java programming exercises and assignments, enriching learning experiences and reinforcing skills in object-oriented programming (OOP).

**Relational Database SQL,COURSERA**

- Completed Coursera's Relational Database & SQL course by mastering database design, querying, and management with proficiency in SQL fundamentals.