PRANAV AGRAWAL

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EDUCATION

George Mason University **Expected May 2024**
Master of Science in Computer Science **GPA : 3.78** Fairfax, Virginia

Graphic Era University **July 2014 - May 2018**
Bachelor of Technology in Computer Science and Engineering Dehradun, India

TECHNICAL SKILLS

Programming Languages	Java EE, Python, C, C++, JavaScript, Shell Scripting
Frameworks & Libraries	Spring, Spring Boot, AngularJS, Apache Spark
Web Technologies	HTML, CSS, XML, JSON, AJAX, Junit, Swagger API
Web Services	SOAP API, REST API, Postman, SoapUI
Database Management	SQL Server, MySQL, Oracle 11g, bigQuery
Development Tools	Maven, Jenkins, Git, BitBucket, SVN, Log4j
IDEs	Eclipse, JBoss Developer Studio, STS, Rational Application Developer
Application Servers	Apache Karaf, Apache Tomcat, IBM WebSphere Liberty
Others	Unix, Red Hat Fuse, Project Planning, SCRUM & Agile methodology, Jira, AWS, GCP, AI/ML

PROFESSIONAL EXPERIENCE

Graduate Research Assistant **May 2023 - present**
George Mason University - College of Engineering and Computing *VA, USA*
Ethereum Consensus Client Diversity Identification and Verification

- Enhanced data processing efficiency by utilizing BigQuery with Google Cloud Dataflow, reducing data redundancy by 7.3%, and optimizing data filtering, while also securing data storage and access with Cloud IAM protocols.
- Automated query execution and data management in Google Cloud Storage using Python scripts, streamlining data updates and integrity checks in accordance with business requirements.

Application Development Senior Analyst **May 2021 - Jul 2022**
Accenture *Bangalore, India*
EHP Application *(Elevance Health (USA))*

- Strategically designed and deployed API architectures and service modules, customizing micro-services to precisely align with and fulfill business objectives.
- Engineered automation of service execution using Cron expressions, refining batch file processing and code optimization that resulted in a 14% enhancement in execution speed.
- Integrated Spring transaction management to oversee and handle incomplete DB transactions, while incorporating Log4j for robust logging functionality.
- Elevated code coverage to 90% with rigorous unit testing and fortified security and data leakage issues by resolving vulnerabilities flagged by SonarQube and CheckMarx..
- Developed a custom shell script to facilitate application deployment and execution on servers, streamlining the deployment process.

Project Engineer **Nov 2018 - May 2021**
Wipro Limited *Bangalore, India*
AWSD Migration from Fuse 6.2 to Fuse 7.6 *(Aviva Health Insurance (UK))*

- Developed APIs to implement code for Approval and Activation in the application life cycle, and integrated AWS KMS to achieve secure user authentication.
- Migrated code to a new framework by upgrading dependencies and implemented required code changes correspondingly.
- Updated Apache Camel Fuse routes and then deployed all the structures in Karaf application server in form of OSGi bundles. Deployed, built and tested the code in Jenkins and released them.
- Automated logs for stats and event routes to accomplish proper Splunk Logging.

PROJECTS

Bank Management System. Certified by Infosys Limited, developed a comprehensive application built with Java and Spring Framework and an MS SQL database for robust management of checking and savings accounts, as well as debt management operations.

Automated Timetable Generator using Genetic Algorithm. A Java based application, that will heuristically produce a schedule in accordance with the initial input criteria. Using a cycle of Review, Edit, and Regenerate till a final result is satisfied.

CERTIFICATION AND ACHIEVEMENTS

AWS Certified Solutions Architect - Associate - Jan 2024
Software Engineering and Agile Virtual Experience Certified from JPMorgan Chase & Co., Forage. - July 2023
Received **Client Value Creation Award** in January and **Pinnacle Award FY22** in April 2022.