Shazia Parveen

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA   *Aug 2021 - Dec 2022*
Master of Software Engineering   **GPA: 3.8/4.0**
Coursework: Requirement Gathering for Scalable Systems, Software Architecture, Quality Assurance and Management, Applied Machine Learning, AI Engineering, Cloud Computing, Software Project Management, Scalable systems, Practical Programming and Data Analysis with Python

Siddaganga Institute of Technology, Bengaluru, IN   *Aug 2007 - Jun 2011*
Bachelor of Engineering, Computer Science and Engineering   *(Top 10% of the graduating class)* **GPA: 9.0/10.0**
Coursework: Data Structures, Analysis, and Design of Algorithms, Distributed Operating Systems, Database Systems, Computer Networks

EXPERIENCE

UPS | Senior Software Development Engineer / Alpharetta, GA   *Aug 2023 - Current*
- Developed and enhanced core functionalities of route optimization and dispatch integration, serving 11 million+ global users
- Demonstrated expertise in crafting and maintaining scalable microservices, resulting in a substantial 50% reduction in delivery times, saving an estimated $300 million annually and 10 million gallons of fuel
  Skills: Microservices, RestAPI, Cloud Computing, Distributed Systems

Deloitte | Senior Software Engineer | Bengaluru, India   *Mar 2015 - July 2021*
- Led a team of five to develop and deliver seven of Transamerica's internal tools designed to verify extremely complicated insurance product-specific business logic, enhancing operational efficiency and accuracy
- Coordinated with clients and cross-functional teams to transform business requirements into technical solutions and served as a subject matter expert on the product calculation module, ensuring alignment between business goals and technical implementation
- Created REST APIs for the pre-processing of submitted insurance applications, resulting in the verification of underwriting conditions before claim approvals. This initiative led to a remarkable 80% increase in the claim approval rate while significantly reducing manual work
- Designed a scalable pipeline to automate data scraping and testing of Transamerica's admin systems, yielding a 30% reduction in test execution costs and a substantial increase in return on investment (ROI)
- Developed, integrated, and provided support for Aflac Web applications, Enrollment Systems, and Field Force Enrollment Tools (SmartApp, SmartApp Next Generation (SNG), and Aflac Web Enrollment Systems (AWES))
  Skills: Web Development, Windows Application Development, Backend Development, Cloud Computing, Docker, Containers, Microservices, Load Balancers, Distributed Cache, Agile, Requirement Gathering, Problem Solving

Cognizant | Developer | Bengaluru, India   *Jun 2014 - Feb 2015*
- Designed and developed responsive analytics dashboards for data analysis and visualization
- Built and integrated application components of a Collaborative Sales Planning software application (iAlign)
  Skills: Web Development, HTML5, JavaScript, Kendo UI, jQuery, MySQL, Bootstrap

Tata Consultancy Services | Systems Engineer | Bengaluru, India   *Oct 2011 - Jun 2014*
- Collaborated within a 50+ member team to develop and enhance a web application for American Express's customer service solution, resulting in a significant 30% improvement in customer experience
  Skills: Web Development, Backend Development, Software Development Life Cycle (SDLC) Process, Documentation, SharePoint, Initiatives

OTHER RELEVANT EXPERIENCE

Surefront, Capstone Project / Pittsburgh, PA   *Jan 2022 - Dec 2022*
- Led a team of five professionals to seamlessly integrate a data syndication service within the Surefront platform, boosting product listings by 30% and increasing monthly sales revenue by 10% for our clients
- **Skills**: Python, Django, ReactJS, AWS lambda, GitHub, CircleCI, Project Management, Risk Management, Quality Assurance, Quality Control, Requirements Gathering, System Design, System Architecture, System Integration, System Testing, System Deployment

Machine Learning in Production | Carnegie Mellon University   *Aug 2022 - Dec 2022*
- Spearheaded the development of a highly available and scalable movie recommendation service designed to handle a large volume of data and user requests
- Built and deployed a machine learning model for implicit collaborative filtering, processing data from a Kafka stream with 30K+ movies, 1M users, and 100+GB of historical data
- Leveraged Kubernetes and load balancing to ensure high availability and scalability of the inference service, with the ability to handle ~10 user RPS, and used Crontab to automate regular updates of the model with the latest data from the Kafka log
- Implemented monitoring and alerting with Prometheus and Grafana, tracking key performance metrics such as request count, latency, and score to ensure optimal service performance and timely issue resolution
  Skills: Python, Jupiter Notebook, DVC, Github, Minikube, Docker, Load Balancer, FastAPI, MySQL, CircleCI, Grafana, Prometheus

Exploratory Data Analysis | Carnegie Mellon University   *May 2022 - Aug 2022*
- Utilized Python for data manipulation, analysis, and insight extraction from various complex data formats
- Conducted database queries and web scraping to compile a comprehensive list of names for machine learning-driven text analysis
- Employed Pandas for ETL tasks, data cleaning, integration, and correlation analysis on sports-related Wikipedia data
  Skills: Python, Panda, ETL, Web Scraping

Stream Processing with Kafka and Samza | Carnegie Mellon University   *Jan 2022 - May 2022*
- Implemented a Kafka Producer to generate data streams based on provided trace files
- These streams simulated real-time driver location updates and client ride requests, which were processed on a remote AWS Samza cluster
- Additionally, I wrote Samza code to consume these streams and implemented an algorithm to match clients with drivers based on their scores and proximity, resulting in the successful creation of a driver-matching service
  Skills: EC2, Samza cluster, EMR, Kafka, TDD, Terraform

Iterative Processing with Spark | Carnegie Mellon University   *Jan 2022 - May 2022*
- Used Spark for Data Exploratory Analysis on a Twitter Social Network dataset
- Implemented and ran the PageRank algorithm on the Twitter dataset to find the most influential users
  Skills: Scala, Zeppelin for Apache Spark, Spark on HDInsight, Databricks, Yarn, Spark UI

Food Ordering Application | Carnegie Mellon University   *Mar 2021 - Aug 2021*
- Developed a user-friendly food ordering app, uniting React frontend with a Java backend, featuring dynamic menus, order placement, and seamless integration for a smooth customer experience
  Skills: Java, PostgreSQL, JavaScript, CSS, HTML

SKILLS AND CERTIFICATIONS

- **Languages**: C#, Java, Python, SQL, JavaScript, C, C++, GraphQL, Scala
- **Tools and Technologies**: Kubernetes, GCP, AWS, Azure, Boto3, Git, Pandas, Flask, Figma, NoSQL Databases, Jenkins, Jira, PostgreSQL, Selenium, PySpark, lxml, Pytest, Django, CircleCI, Cypress, Jest, Postman, Micro-services, System Design, Distributed Systems, Web development, JaCoCo, PITest, PubSub, Kafka, Docker, DataStore, FireStore
- **Certifications**: AWS Certified Cloud Practitioner, Hadoop (Linkedin), Deloitte Industry Proficiency Program - Banking & Financial Services, Machine Learning by Andrew NG (Coursera)