# Shazia Parveen

+1(412)-608-7635 | sparveen@andrew.cmu.edu | LinkedIn | GHC 2023 | My Portfolio

#### **EDUCATION**

#### Carnegie Mellon University, Pittsburgh, PA

Master of Software Engineering

Aug 2021 - Dec 2022

GPA: 3.8/4.0 Coursework: Requirement Gathering for Scalable Systems, Software Architecture, Quality Assurance and Management, Applied Machine Learning, Al Engineering, Cloud

Computing, Software Project Management, Scalable systems, Practical Programming and Data Analysis with Python

Siddaganga Institute of Technology, Bengaluru, IN Bachelor of Engineering, Computer Science and Engineering

Aug 2007 - Jun 2011 (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: C#, Microservices, Rest API, Apigee, GKE, PubSub, Docker, Jenkins, Azure DevOps, Distributed Systems

### Deloitte | Senior Software Engineer | Bengaluru, India

(SNG), and Aflac Web Enrollment Systems (AWES))

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
  - Skills: C#, Java, Python, AWS, MySQL, Web Development, Windows Application Development, Docker, Containers, Microservices, Load Balancers, Distributed Cache, Agile, Requirement Gathering, Cross-functional team collaboration

### 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: C#, HTML5, JavaScript, Kendo UI, jQuery, MySQL, Java

#### 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: Software Development Life Cycle (SDLC) Process, Documentation, .NET Framework, MySQL, C#, Web Services, HTML5, JavaScript, CSS3, XML, SOAPUI, SharePoint, Responsive UI Design, 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, CircleCl, 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
- 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 Used Spark for Data Exploratory Analysis on a Twitter Social Network dataset

Jan 2022 - May 2022

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, Ixml, Pytest, Django, CircleCl, 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)