Harshit Viren Shah

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Education

Master of Science, Computer Science **May 2024**
Arizona State University, Tempe, AZ *GPA: 3.93/4.0*
Coursework: Software Design, Software Verification and Testing, Data Mining, Data Visualization, Semantic Web Mining

Bachelor of Technology, Computer Engineering **Jun 2019**
University of Mumbai, India *CGPA: 8.22/10.0*
Coursework: Analysis of Algorithms, Database Management Systems, Data Mining, Operating Systems, Cloud Computing

Technical Skills

Programming Languages: Java, Python, JavaScript, C, C++, C#, SQL, R, HTML, CSS, TypeScript, GraphQL
Development Frameworks: Node, Angular, Spring, React, React Native, Django, Flask, Express, Selenium, Puppeteer
Datastores: MySQL, SQL Server, MongoDB, Azure Data Lake, DynamoDB, Elasticsearch
Cloud Tools: Azure(ADF, LogicApps, Power Automate, Blob Storage), AWS (S3, EC2), Oracle, GCP
Software Tools: Git, Docker, Jenkins, Kafka, Sharepoint, Salesforce, JMeter, Shell
Certifications: ISTQB Certified Tester Foundation Level, Azure AZ-900

Professional Experience

WTW, India **Jul 2019 – Jul 2022**
Software Engineer

- Spearheaded the implementation of an Angular interface powered by Azure orchestrators, revolutionizing real-time application updates, and eliminating manual processes, boosting operational efficiency by 40% and reducing response times
- Architected and implemented a unified integration layer through RESTful API services, consolidating functionalities across siloed applications enhancing system interoperability and reducing operational costs by 25%
- Developed a on-boarding system across 12 applications by leveraging C# and Azure functions, enabling asynchronous parallel provisioning and streamlined access for 2,500+ clients saving 12,500+ person-hours
- Led Scrum teams, improving sprint velocity by 15% ensuring effective planning, execution, and delivery of project milestones
- Implemented SQL procedures and ADF v2 pipelines consolidating siloed datasets from diverse systems including Salesforce and SharePoint, overcoming challenges of disparate identifiers
- Leveraged Selenium and NUnit to develop automated regression testing packs with post-release triggering on Azure, reducing manual testing efforts for an inefficient 3-day QA cycle, accelerating it to just 2 hours
- Integrated APIs and used polling mechanisms for clients in the KYC process, reducing the turnaround time to 30 minutes
- Streamlined support processes, implementing failure alerts for identifying issues reducing incident resolution time to 2 hours

Projects

LogicAttack: Adversarial Attacks using Propositional Logic [Huggingface, Python] [GitHub] **Aug 2023**

- Conducted in-depth research into LLM vulnerabilities using propositional logic, identifying key weaknesses in ROBERTa, BERT SNLI and MNLI, and FLAN-T5 models
- Demonstrated the weaknesses of LLMs by executing propositional logic-based attacks, achieving a 90% attack success rate

Reddit API Wrapper [Java] [GitHub] **Jul 2023**

- Designed a React and Django-based dashboard for real-time tracking of global COVID-19 infections, integrating APIs for up-to-date data, enhancing public awareness and response strategies
- Engineered the wrapper, simplifying data retrieval by efficiently querying based on tags and criteria

DDoS Attack Detection Using Machine Learning **May 2023**

- Engineered a high-performance DDoS detection system by implementing a novel hybrid deep learning model analyzing spatial and temporal features of TCP/UDP requests in a two-stage approach, achieving over 90% attack identification accuracy
- Spearheaded comprehensive research on DDoS attacks and detection methodologies to propose an innovative hybrid model combining deep learning with targeted analysis of request characteristics, resulting in enhanced detection capabilities

Covid Tracker [Angular, Django] [GitHub] **Jan 2023**

- Designed a Angular and Django-based dashboard for real-time tracking of global COVID-19 infections, integrating APIs for up-to-date data, enhancing public awareness and response strategies
- Visualized a user interface, showcasing COVID-19 cases across United States and trends over the past week

Image Captioning using Neural Networks for Social Media [TensorFlow, Python, PHP] [GitHub] **May 2019**

- Implemented a Deep Recurrent Convolutional Neural network with Long Short-term Memory RNN to identify image context and suggest captions, integrable with four major social media platforms
- Achieved a BLEU Score of 55.8 on the generated captions, equivalent to human-legible speech