

Kshitij Zutshi

Cambridge, MA, USA | +1 (504)-383-3903 | zutshi.k@northeastern.edu | <https://www.linkedin.com/in/kshitij-zutshi>

SUMMARY

Experienced Software Engineer with over 5 years of expertise in Object-Oriented programming and cloud technologies. Proficient in cloud-native design patterns and DevOps principles, with 3+ years of leveraging AWS to optimize solutions for large-scale data pipelines

PROFESSIONAL EXPERIENCE

Software Engineer | Scale AI | Remote, USA

February 2024 – Present

- Conducted comparative analysis of prompt responses among **LLM Models** (GPT-4, Claude3, LLaMA), identifying areas for code-based enhancements
- Implemented reinforcement learning with human feedback (**RLHF**) to rate model responses, driving optimization for **Open AI Project Feather** and boosting AI accuracy and safety

Software Engineer – Hospital Patient Monitoring | Philips North America | Cambridge, MA

January 2023 – August 2023

- Deployed **.NET microservices** for organization-wide repository **DevOps metrics monitoring** to **CURL** data from GitHub workflows to PostgreSQL cluster managed by Argo CD; metrics for **200+** active repositories visualized on **Grafana** and **Tableau** dashboards
- Led **AWS CloudFormation** template deployment for automated **EC2** instance deletion based on job duration (4/8/24 hrs.) or exceeding **\$2000** billing; Utilized **CloudWatch** alarms and **Step Functions** to enhance resource management, cost control, & operational efficiency by **90%**
- Orchestrated **CI/CD** workflows with **GitHub Actions**, **AWS** and **Terraform (IaaS)** scripting, enabling seamless integration & deployment of microservices across multiple environments; leading to **45%** decrease in deployment failures

Senior Software Engineer - Infrastructure | WobileApps LLC | Chennai, India

June 2019 – August 2021

- Developed digital Infrastructure for Indian e-Governance Portal's Mortgage and estate core modules for government employees using **React**, **GraphQL**, **C#/.NET**, **JavaScript (ES6+)** and parsing **JSON** from **PostgreSQL** DB thereby increasing website traffic by **70%**
- Compiled code for legal document upload and **text extraction** for verification in citizen portal's mortgage module, to achieve **40%** higher **fault tolerance** in fraudulent document uploads; API endpoints testing done using **Postman** and **Charles Proxy**

Software Engineer | Infosys Limited | Chennai, India

September 2017 – June 2019

- Led an Agile team of **8** developers to reinforce the core architecture of Customer Account Opening (CAO) and Retail Diary (RD) modules for a Scottish banking client, ensuring heightened **security** & resilience in handling **sensitive JSON** data from **API**; Implemented eKYC (electronic **Know-Your-Customer**) feature based on **special needs** (disability options) of the customer using **.NET microservices**, **React** and **PostgreSQL** for fast and efficient **data processing**
- Enhanced **SQL** queries to identify and analyze Customer **Churn Rate (CCR)** in users with special needs, resulting in a substantial **30%** increase in customer lead generation and retention Q1 of 2019

TECHNICAL SKILLS

Programming Languages:	Python, Java, JavaScript, C#, SQL (MySQL), GraphQL, Shell Scripting, Prompt Engineering
Frameworks:	ASP .NET Core, .NET Entity Framework, React
Big Data & Cloud:	AWS, S3, Sage Maker, Lambda, IAM, EC2, CloudWatch, CloudFormation, HDFS, Azure (DevOps, Container Registry), FAST API, Kafka, Serverless Framework, Kubernetes, Docker, Postman, Streamlit, Grafana, GitHub Actions, Argo CD, LLMs (ChatGPT, LLaMA, Claude3), YAML, git

EDUCATION

Northeastern University, Boston, MA

December 2023

Master of Science in Computer Software Engineering, GPA: 3.7/4.0

Relevant Coursework: Advanced ML/Deep Learning, Big Data Systems & Intelligence Analytics, Cloud Computing

Amrita Vishwa Vidyapeetham, India

May 2018

Bachelor of Technology in Computer & Electronics Engineering

PROJECTS

Delivered Content based Music Recommendation system for Spotify Music Data

Technologies: Python, AWS, SQLite3, SMTP, GitHub Actions, PyTest, Locust, Streamlit

- Ingested Spotify **Millions Playlist Dataset** to Extract, Enrich and create tables using **Python & SQLite3** database; Leveraged **AWS Sage Maker** to train, deploy **KMeans** Clustering model and expose model as an **API** endpoint via **Lambda** Trigger
- Incorporated **Streamlit** to create a frontend application & developed **YAML** github actions workflow to send weekly recommendations, user analytics to users using **SMTP** server

Deployed End-to-End Big Data pipeline for SEVIR (Storm Event Imagery) dataset on cloud

Technologies: AWS S3, HDFS, GCP (Buckets, Dataflow, Big query, Data Studio), ETL, FAST API, Docker, Streamlit, Serverless

- Performed Ingestion and **ETL** on **MIT Storm Event Imagery (SEVIR)** dataset **challenge (2TB Dataset Size)** using **Airflow**
- Built Machine Learning as a service product for pre-trained **Nowcasting** intelligence system in Media Outlets; deployed model using **Docker**, **FAST API** and **Streamlit**
- Exposed **Hugging Face BERT** NLP models as an **API** by deploying it to **AWS** using **Serverless** Framework to get **Named-Entity Recognition, Question & Answering and Summarization** on Storm event and episode narratives