

Sankalp Kulkarni

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Experience

Canada Revenue Agency (IT Developer | Remote, Canada)

Jan 2024 – Dec 2024

- Developed an **asset management plugin** using **Python** that consolidated multiple server requests for assets, reducing the occurrence of false positive DDoS flagging from 84,000 to 13 (a **99.98% reduction**), earning recognition from the division director for exceptional performance
- Integrated the asset management plugin with Jenkins** CI/ CD pipeline to automate the process of asset creation
- Contributed to the **migration of “My Business Accounts” and “Represent a Client” web applications from Struts to Angular (HTML, SCSS, TypeScript) and Enterprise Java**, resulting in significant improvements in load times and overall application performance
- Reorganized and optimized a codebase of over 1,400 files** by developing a semantic hierarchy and implementing **automation scripts** using **NodeJS**, significantly improving code maintainability and efficiency
- Partnered with the Solution Architect** to diagnose and **eliminate memory leaks** in the Angular-based web application, and **enforced RxJS best practices to optimize state management** and subscription handling across the framework

Tata Consultancy Services (Full Stack Web Developer | Pune, India)

Aug 2020 – July 2022

- Developed a **content transformation engine** to support progressive and responsive content using OpenCV for Java, Angular (TypeScript, SCSS), achieving up to 85% reduction in network congestion, with performance **validated through Lighthouse tool** testing
- Implemented caching strategies for the Angular application** using HtmlWebpackPlugin and TypeScript, optimizing response times by 15% and enhancing overall user experience
- Designed and developed **four reusable widgets** with built-in support for **responsiveness, dynamic data context, and AI-driven adaptive rules**, enabling seamless **personalization based on user environment**
- Built a testing governance framework leveraging Git hooks and webhooks** to enforce code coverage thresholds and ensure adherence to development best practices
- Created custom caching rules for the Azure Content Delivery Network** based on path and query parameters, resulting in a 30% improvement in turnaround time (TAT) for asset delivery
- Created and maintained Azure Dashboards** for task tracking and sprint analytics, utilizing **Azure Work Item Queries**

Virtusa Consultancy Services (Full Stack Web Developer | Hyderabad, India)

June 2019 – July 2019

- Built a one-shot facial recognition application in Java** using the OpenCV SDK and transfer learning, achieving 85% accuracy
- Designed an admin dashboard web app for access control** using React, TypeScript, HTML, and SCSS
- Managed authentication data storage** using MySQL, Firebase, and AWS S3

Skills

Programming Languages: JavaScript (ES6), TypeScript, Node.js, Java, Python, SQL, HTML, SCSS, Shell Scripting

Frameworks & Libraries: React, Angular, RxJS, Apache Kafka, Spring Boot, Pandas, Jest, Junit

Web Technologies: GraphQL, NGINX, Webpack, J2EE, Weblogic, JFrog

Cloud & DevOps: AWS Stack, Kubernetes (EKS), Docker (ECS), Google Cloud Run, Azure Queries, Azure CDN, Azure Dashboards

Tools & Development Environments: VSCode, Postman, Arduino IDE, MS Excel

Version Control & Collaboration: Jira, Confluence, Notion, Git, GitHub, GitLab, Gitea, Git Hooks, Web Hooks

Education

Dalhousie University, Halifax

Jan 2023 – Apr 2024

Master of Applied Computer Science

4.2/ 4.3



Savitribai Phule Pune University

Aug 2016 – June 2020

Bachelor of Computer Engineering

8.92/ 10.0

Certifications

- AWS Certified Solutions Architect-Associate 
- Advanced Python concepts by HackerRank 

Projects

Trivia Titans | [GitHub](#)

May 2023 – Aug 2023

A multi-player online trivia game allowing players to collaborate during the gameplay

Nodejs, Python, AWS Lambda, Microservices, DynamoDB, AWS WebSocket API Gateway, Kafka, React, RxJS, Google Cloud Run, K8s, Terraform

- Developed the **in-game experience** and **live chat feature** of the web application to **support real-time synchronization** between teammates using **AWS WebSocket API Gateway**, Amazon managed Streaming for **Apache Kafka**
- Deployed the backend using **serverless architecture** (microservices design pattern) on **AWS Lambda, Google Cloud Run, AWS API Gateway**
- Developed real time leaderboards** using AWS ElastiCache for Redis