Tanuj Palaspagar

SOFTWARE DEVELOPER ENGINEER

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EXPERIENCE

HP Inc. JUN 2024 - MAR 2025
SYSTEM SOFTWARE ENGINEER HOUSTON, TX

- Architected microservices for Workforce Experience Platform, consolidating REST endpoints into GraphQL APIs within Spring Boot on AWS.
- Formulated subscription-based strategies by collaborating on plan and feature creation, defining subscription tiers and product capabilities.
- Optimized distributed system performance by resolving authentication bottlenecks and implementing efficient request header sizing configurations.
- Implemented cloud-native strategies using AWS services (S3, Secrets Manager), transitioning legacy infrastructure to modern architectures.
- Designed multi-tenant SaaS subscription algorithms and integrated Slack/MS Teams via webhook APIs, enabling per-tenant configurations.
- Engineered Go-based localization service supporting 20+ languages with automated string lifecycle with cross-service synchronization patterns.

HP Inc. MAY 2023 - AUG 2023
SOFTWARE DEVELOPER INTERN HOUSTON, TX

- Revamped HP TechPulse reporting system by designing a flexible, configurable analytics solution to address existing limitations.
- Implemented a secure data pipeline using AWS Kinesis and RedShift, increasing reporting efficiency by 65%.
- Accelerated real-time data transfer using WMI events from Windows client app with end-to-end latency of under 17ms down from 60ms.
- Pioneered custom AWS QuickSight API integrations to architect a scalable and dynamic solution enhancing data-driven decision-making.
- Generated estimated $250,000 annual savings for enterprise clients by fixing operational overhead and customizing data-analysis capabilities.

CloudEnd Platform Pvt Ltd JAN 2022 - JUL 2022
SOFTWARE DEVELOPER REMOTE

- Optimized financial processing by refactoring SQL Server stored procedures with improved execution plans, accelerating billing cycles by 40%.
- Automated Python-based ETL framework for billing data integration, reducing manual corrections by 95% and enhancing invoice accuracy.
- Orchestrated billing pipeline using Apache Airflow, ensuring reliable financial delivery and total compliance with reporting SLAs.
- Fortified deployment infrastructure with Git, Jenkins and Linux monitoring scripts, reducing failures by 65% for critical billing services.
- Architected scalable billing on AWS services (S3, EC2, Lambda), supporting 3× transaction volume during peaks while decreasing costs by 30%.

Techobytes Technologies MAY 2020 – AUG 2020
DATA SCIENCE INTERN MUMBAI, INDIA

- Devised time-series ML models using TensorFlow on COVID-19 case data, improving forecast accuracy by 35%, enabling outbreak alerts.
- Performed risk-pattern analysis using data visualization pipelines, uncovering high-transmission clusters and enhancing epidemiological insight.
- Built dashboards with FBProphet, automating daily trend updates - streamlining projection delivery for public health researchers and stakeholders.

EDUCATION

The University of Texas at Arlington MAY 2024
Master of Science in Computer Science - Specialized in Intelligent Systems and Databases

University of Mumbai MAY 2022
Bachelor of Engineering in Computer Engineering

RESEARCH & PROJECTS

Home Lab Kubernetes Cluster NOV 2024 - MAR 2025
Ubuntu, Kubernetes, Calico, GitLab CI/CD, Packer, Lens

- Assembled a robust Kubernetes home lab with 9 HP Spectre SFF PC nodes with Ubuntu 20.04 LTS, implementing Calico CNI for networking.
- Automated infrastructure provisioning using Hashicorp Packer, with a comprehensive GitLab CI/CD pipeline for seamless application deployment.
- Leveraged Lens as a centralized management interface, enabling efficient cluster monitoring and management.

Credit Card Fraud Detection SEP 2021 - FEB 2022
Regression, Random Forest, Support Vector Machine, Machine Learning, Python

- Engineered and benchmarked efficacy of four machine learning models to detect anomalies evaluating their performance across six metrics.
- Synthesized a real-time transaction alerts solution achieving 23% precision boost and 30% reduction in false positives to existing systems.
- First author to international publication: Study of Machine Learning Algorithms for Credit Card Fraud Detection (IRJMETS Vol. 4, 2022)

SKILLS

Programming Languages: Go, Java 17, Python, C/C++, SQL, GraphQL, MATLAB, Visual Basic, MicroPython
Frameworks & Tools: Spring Boot, Docker, Apache Airflow, PySpark, Git, Jenkins, Postman, Jupyter, Visual Studio
Cloud & Platforms: AWS (Lambda, RedShift, Kinesis, S3, EC2), GitLab CI/CD, Azure Pipelines, Linux (Ubuntu/Arch), SonarQube