






# Shreyas M Kaushik

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## SUMMARY

Result-oriented Software Engineer specializing in AI/ML systems, with experience in building scalable applications from scratch and owning end-to-end systems. Proven track record in architecting and implementing cloud-native solutions that process millions of requests daily. Strong expertise in Python and TypeScript with a focus on FastAPI and Node.js. Passionate about solving complex problems with pragmatic engineering solutions and ready to help build a company from day one.




## EXPERIENCE

- IHX - A Perfios Company** Bangalore, India  
*Senior Software Engineer* Jul 2024 - Present
  - Persistence Engine:** Architected and developed a single-layer persistence solution using TypeORM and Node.js/TypeScript that reduced average query time from 1-2 seconds to 10-15ms across 10 tables, significantly improving system performance and scalability.
  - Orchestration Engine:** Built a high-throughput system processing over 10 million messages daily using SQS to manage digitization requests and track processes across various AI/ML entities, providing unified status visibility to clients.
  - Context-Aware Service:** Built a FastAPI service for Bill Line Item Classification that selects appropriate models or rule-based logic based on insurance and policy combinations, optimizing claim processing efficiency and accuracy.
  - Authentication Solution:** Designed and implemented a comprehensive MFA and SSO solution using Keycloak, enabling secure access control across multiple services and applications.
- IHX - A Perfios Company** Bangalore, India  
*Software Engineer* Aug 2022 - Jun 2024
  - Document Classifier:** Developed a solution for India's largest health benefits administrator that increased "complete claim submissions on first instance" from 23% to 77% within 2 weeks by providing secure integration to document classification models.
  - Infrastructure Design:** Led infrastructure design and implementation for securing AI models and establishing efficient scaling strategies, enabling rapid deployment of new features while maintaining high availability.
  - QC UI Development:** Created React-based Quality Control UI screens for correction of ML model outputs, contributing to an increase in document classification model accuracy from 64% to 96%.
  - Observability:** Implemented comprehensive logging and integrated with Promtail, Loki, and Grafana to ensure system-wide observability, enabling rapid debugging and performance optimization.
- Nulenta Pvt. Ltd** Remote  
*Software Engineering Intern* Aug 2021 - Apr 2022
  - Pro10X Chrome Extension:** Developed core talent sourcing product using JavaScript, implementing automated talent discovery and assessment features for efficient candidate evaluation.

## TECHNICAL SKILLS

- Languages:** TypeScript, Python, JavaScript, Bash
- Web Technologies:** Node.js, React.js, Django, FastAPI, Express
- AI/ML Integration:** Model deployment, API wrapping, Classification pipelines
- Cloud & DevOps:** AWS (EC2, S3, SQS, ALB, EKS, API Gateway, Cognito), Docker, Kubernetes, GitHub Actions
- Databases:** MongoDB, PostgreSQL, MySQL
- Tools:** Git, Grafana, Prometheus, Promtail, Loki, Keycloak, OAuth 2.0




## PROJECTS

- Secure Files Demo (Django, React, Keycloak):** Created a comprehensive demo application showcasing MFA plugin integration with additional security practices like self-signed certificates.  [github.com/shreyasY2k/secure-files](https://github.com/shreyasY2k/secure-files)
- Contra (Three.js, AI-assisted):** Built a complete 3D run & gun shooter game in just 2 hours without writing manual code, leveraging AI tools like GitHub Copilot and Claude 3.7. Features enemies, vehicles, and weapon systems.  [shreyasy2k.github.io/contra](https://shreyasy2k.github.io/contra)
- Python Spawn (Node.js, npm package):** Created and published an npm package that bridges Node.js and Python, enabling seamless execution of Python scripts and functions from Node.js applications. Features include automatic Python command detection, asynchronous support, and robust error handling.  [github.com/shreyasY2k/python-spawn](https://github.com/shreyasY2k/python-spawn)


## EDUCATION

- Sapthagiri College of Engineering** Bangalore, India  
*Bachelor of Engineering - Information Science; CGPA: 8.5* 2018 - 2022

## TECHNICAL WRITING

- Building a Custom MFA Plugin for Keycloak:**  SMS, Email & Telegram Integration
- Mastering Multi-Factor Authentication in Keycloak:**  SMS, Email, and TOTP Setup Guide
- Unlocking Seamless Access:**  Orchestrating Centralized User Management with Keycloak

## CERTIFICATIONS

- Architecting with Compute Engine:**  Coursera Specialization Certificate
- The Modern Javascript Bootcamp:**  Udemy Certificate