

Pratik Rakesh Mandge

Software Engineer · AI/ML · Fintech

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PROFESSIONAL SUMMARY

Software Engineer at **OneFin (Y Combinator W17)**, fintech platform processing **\$2B+ in loans across 1M+ customers**. Built the **Early Warning Signal (EWS)** production ML system (XGBoost, AUC 0.954, 94.5% accuracy) and **FinAgent**, OneFin's LLM integration framework on AWS Bedrock (60% LLM cost reduction). Full-stack engineer with 2+ years across fintech, e-commerce, and enterprise platforms. Oracle Java Certified · AWS Cloud Economics Accredited.

PROFESSIONAL EXPERIENCE

Software Development Engineer

Oct 2024 – Present

OneFin (Y Combinator W17) — Fintech Platform, Bangalore, India

- **Early Warning Signal (EWS):** End-to-end XGBoost credit-risk model predicting loan default before next EMI. Full pipeline: feature engineering (DPD trends, pincode risk encoding, repayment behaviour), class-weighted training, hyperparameter tuning, daily batch inference, visualization API. Iterated LR → RF → XGBoost. **AUC 0.954, 94.5% accuracy on 150K+ loans**. CEO-endorsed company-wide launch.
- **FinAgent — LLM Framework:** AWS Bedrock-based AI infrastructure (Nova Pro, Llama 3). AIExplainer for financial reports, configs, errors & code with SHA-256 prompt caching. **60% LLM cost reduction, 95% explanation accuracy, 2–5s response time**. Adopted by LMS, LIS & IE teams.
- **Report Comparison Engine:** Automated Excel/CSV/ZIP reconciliation with Standard & Side-by-Side diff modes. Migrated Pandas → Polars for large-file efficiency. **95% reduction in manual validation time**.
- **Core Lending System:** Refactored repayment waiver/reversal/closure logic; introduced Excess Allocation ID; extended NACH with multi-MID support; added data integrity constraints; optimised DuckDB/Django ORM report pipelines reducing generation from hours to minutes. Multi-client support: WeRize, Unity Digital, Edgro, Auxilo, Ecofy.

Associate Web Developer

Nov 2023 – Sep 2024

WebTech Developers Private Limited — Pune, India

- **Deskshare E-commerce Platform:** Full-stack (React.js, Django REST, MySQL) with **6-language i18n**, IP-based location detection, secure payment integration. Deployed on Nginx; **reduced downtime 15%**.
- **Azure Integration & Admin:** Integrated Azure Speech-to-Text + Language Translation APIs. Built CRUD admin dashboard with RBAC, **improving admin efficiency by 30%**.

Junior Software Engineer & Technical Trainer

May 2023 – Oct 2023

ABC Trainings — Jalgaon, India

- Trained **250+ students** in React.js, Node.js, MERN, Python, Java, C++. **95% satisfaction rate, 90% project completion**. Developed hands-on curriculum; maintained technical documentation across multiple stacks.

Software Development Intern

Dec 2022 – Jul 2023

Virtusa Consulting Services Private Limited — Remote, India

- Built full-stack social media app (React.js, Spring Boot, MySQL) with JWT auth and real-time WebSocket chat.

KEY PROJECTS

Early Warning Signal (EWS)

Python · XGBoost · Scikit-learn · DuckDB · Pandas · Django

- Production ML pipeline (150K+ loans): DPD feature engineering, class-weighted XGBoost, AUC 0.954, 94.5% accuracy.
- Daily batch prediction pipeline, EWS score storage, visualization API, interactive dashboards for risk teams.

FinAgent — LLM Integration Framework

Python · Django · AWS Bedrock · Nova Pro · Llama 3 · PostgreSQL · Celery

- Modular AI framework: plug-and-play LLM support, AIExplainer for reports/configs/errors/code.
- SHA-256 caching → 60% cost reduction; 95% UAT accuracy; adopted by multiple internal teams.

Report Comparison Engine

Python · Polars · Django · Celery

- Automated Excel/CSV/ZIP reconciliation; Standard & Side-by-Side modes; Pandas → Polars migration.
- Color-coded diffs, step-level tracking; 95% manual validation reduction.

Deskshare — E-Commerce Platform

React.js · Django REST · MySQL · Azure Cloud · Nginx

- 6-language i18n, IP detection, RBAC admin, payment gateway; Nginx production deployment.

Kurtiz — Fashion Store

[React](#) · [Vite](#) · [Tailwind](#) · [Django](#) [REST](#) · [PostgreSQL](#) · [Docker](#) · [JWT](#)

- Full-stack clothing e-commerce with catalog, cart, orders, payments, reviews & notifications.

Konnect — Social Media App

[React.js](#) · [Spring Boot](#) · [MySQL](#) · [WebSocket](#) · [JWT](#)

- Full-stack social platform with real-time chat, notifications, posts, and JWT authentication.

TECHNICAL SKILLS

Languages:	Python, JavaScript, TypeScript, Java, SQL, C++, HTML5, CSS3
Frameworks:	Django, DRF, React.js, Node.js, FastAPI, Flask, Express.js, Spring Boot
AI / ML:	XGBoost, Scikit-learn, Pandas, Polars, NumPy, DuckDB, AWS Bedrock, LangChain, RAG, MCP, pgvector
Databases:	PostgreSQL, MySQL, MongoDB, Redis, SQLite
Cloud & DevOps:	AWS (S3, Bedrock), Azure, Docker, Nginx, CI/CD, Git, GitLab, Linux, Bash, Celery
Tools:	GraphQL, REST APIs, JWT, OAuth2, WebSockets, Sentry, SonarQube, Postman, Jupyter

EDUCATION

B.Tech in Mechanical Engineering — CGPA 8.55/10

R.C. Patel Institute of Technology, Shirpur, Maharashtra · Dec 2020 – Jul 2023

Diploma in Mechanical Engineering — 84.62%

Shri Sai Institute of Technology, Amalner, Maharashtra · Jun 2017 – Jun 2020

CERTIFICATIONS & ACHIEVEMENTS

EWS Product Launch — AI-Powered Predictive Risk & Default Prevention — OneFin company-wide launch, CEO-endorsed, April 2026

Oracle Certified Java Associate (OCA) — Oracle Corporation, January 2023

AWS Partner: Cloud Economics Accreditation — Amazon Web Services, January 2023

Python for Data Science Certification — Coursera – IBM, July 2022

German A1 Level Certification — RCPIT Institute, June 2022

LANGUAGES

English: Fluent (Professional) · **Hindi:** Fluent · **Marathi:** Native · **German:** Basic (A1)