Divit Patidar

divit.patidar@gmail.com | (832) 755 3403 | **LinkedIn** | **GitHub** | **Portfolio**

EDUCATION

Rice University   Aug 2023 – Dec 2024
Master of Science, Computer Science   *Houston, Tx*
Coursework: Data Structures & Algorithms, Machine Learning, Cloud Computing, Object-Oriented programming (OOPs), System Design, SDLC, Artificial Intelligence, NLP, Data Science & Analysis, Data Engineering.

WORK EXPERIENCE

Software Developer   Aug 2024 – Present
Benchmark Insurance Group

- Set up custom **portals** (agents, brokers, underwriters, etc.) & built an onboarding journey for the customer, using **React** on **AWS EKS**, developed commission splits and premium payouts using **Ascends** POST **API**.
- Developed a Python-based pricing rules engine in **Django** to estimate surcharges based on claims, PPC, theft, and liability inputs supports dynamic rules via **JSON config**, with audit logs and override logic.
- Built **chunking** logic for long **PDFs** (token-aware, clause-level) before embedding, it preserved context boundaries in **GPT** outputs.
- Built a question-answering tool for agents using **embeddings & vector** search over policy docs. Added prompt filters and schema checks to block risky or fake **LLM** answers before showing them.
- Created a **Quality Assurance** utility in **React** with **Redux** where support agents can paste an uploaded document and see its entire journey PDF parsing, embedding retrieval, and GPT summarization with real-time logs streaming from **backend microservices**.

Software Engineer Intern   May 2024 – July 2024
OpenStax

- Wrote a **CI check** that blocks commits if **MDX content** breaks the **LLM summarizer**, prevented broken outputs from going live.
- Implemented protected **React** routes with **Redux** toolkit managing user permissions and **SSO tokens**, managing access incidents and enabling a pilot campus **licensing** program.
- Introduced React **DevTools** profiler **gates in CI**, catching several **render-loop** regressions before production **release**.
- Tracked down a **data consistency** caused by mismatched **schemas** & fixed it by moving the service to **NodeJS** backed by **SQL**.

Software Engineer   Apr 2021 – Jul 2023
Amazon (Fleet)

- Worked on a **React project** where **delivery drivers** were being routed to the **back entrance** of buildings in some **urban areas** worked with **ops** of those areas to add a new field for '**preferred access point**' and made it editable in the **zone editor**, used **MapBox GL**.
- Wrote a feature that archived old delivery zone **configs** to **AWS S3** Buckets every week using **Redux middleware** to track config changes, caught a case where a bad deploy deleted **200+** live **configs**, and restored them from the backup.
- Built a **Kafka** replay tool into our **GraphQL API** for **QA** testing it easier to reproduce **UI** bugs tied to event order or timing.
- Implemented **Express.js** middleware to handle **API** versioning of mobile app compatibility, routing requests based on client headers.
- Created a drift detector **python** function that compares latest **zone setups** to system defaults and flags risky customizations.
- Added a script to flush staging **Redis keys** before test runs, solved random session bleed between tenants.

SKILLS

Languages and Databases: HTML/CSS, JavaScript/ TypeScript, Python, SQL/NoSQL, MongoDB,
Frameworks and Technologies: React, Next, Node, Express, Redis, GraphQL, TensorFlow, Kafka, Django, Flask, Linux, Unix
Developer and Cloud Tools: AWS, Azure, Docker, Git, Vercel, Firebase, Supabase
Analytics and Agile Tools: Pandas, NumPy, scikit-learn, MS Excel, Jira, Confluence, Agile

PROJECTS

Pick-A-Pad (Rice University Project with JLL) | *Next.js, Node.js, PostgreSQL, TypeScript, RAG, Axios (Link)*   **Duration: 11 months**
- Built a full-stack **sandbox app** to handle tenant screening, payments, and lease/document uploads all in one place for **landlords and agents**.
- Set up a **screening pipeline** that runs credit and background checks (**Sandbox Environment** from **TransUnion** same exact **Api structure**), then **scores** applicants using my own **logic** to speed up **approvals**.
- Setup **a test suite** for lease parsing using **100+** real and dummy **leases**, used it to **benchmark prompt quality** across model **versions**.
- Created multi-entity onboarding system **supporting** (Vendors, Agents, Property Managements) to do their roles witch specific ruleset.

Storybook Design System (UI Library) | *React.js, TypeScript, Storybook (Link)*   **Duration: 4 months**
- Built a UI Library with **15+** reusable hooks, **Synced Figma** design tokens to Storybook **MDX docs**, halving designer engineer hand-off.

Trackify | *React.js, Express.js, Node, Docker, MongoDB Atlas (Link)*   **Duration: 2.5 months**
- A web application designed to streamline **task management** and enhance productivity in the workplace. A user-friendly interface for employers to keep track of their **employees daily work** activities and empowers employees to log their tasks efficiently.

Stegano LLM | *Python, GEN-AI, LLM, Base-64, Dolly-3B (Link)*   **Duration: 9 days**
- Developed, a steganography **system** that leverages **Dolly3B** model to generate **text prompts** containing **Base64-encoded** image data Successfully embedded a **64×64 image** per **1,000** tokens. The system enables covert data transmission through **AI-generated content** while maintaining perfect reconstruction.