

# DHRUV PATEL

[in LinkedIn](#) | [669-837-9470](tel:669-837-9470) | [dhrup Patel.com](http://dhrup Patel.com) | [pateldh0611@gmail.com](mailto:pateldh0611@gmail.com) | [GitHub](#)

## Skills

- C# | .NET | Java | C++ | JavaScript | TypeScript | Python | CosmosDB | MSSQL | LLMs | React | Redux | jQuery | NoSQL | Git | CNNs
- Azure | Cloud Computing | CI/CD | XUnit | AWS | Unit Testing | Lambda | OOP | Docker | Power Automate | Shell Scripting | Cuda
- Microservices | Distributed Systems | Backend | Full-Stack – **All professional proficiency or above**

## Experience

**Graduate Researcher** San Jose State University San Jose, CA, USA 09/2023 - Present

- Engineered a deep learning model using **Pytorch and Cuda**, centered on cross-vehicle perception to enhance vision-based cooperative driving, achieving 40% increase in average success rate for egocentric driving scenarios.

**Software Engineer Intern-II** MarketAxess NYC, NY, USA 05/2023 - 09/2023

- Orchestrated a 7-member intern team to implement real-time notification services for trading workstation using **AWS API Gateway with WebSockets API**, achieving sub-20ms latency for dealer price releases, driving client engagement and shorter response times.
- Engineered a logging system, setting up **Logstash** for aggregation and uniform logging across **Java** based microservices and **Elasticsearch** for storage; increased data retrieval speed by 50% and enhanced agility with instant telemetry access through **Kibana dashboards**.
- Enhanced UI capabilities by integrating trade ticket feature using **React, Redux and AG Grid**, fetching data from **Kafka** topics streamlining monitoring and tracking of 400K+ executed trades amounting to \$23.7 billion quarterly by 2000+ clients.
- Built and presented a Slack bot utilizing data from Bitbucket commits, JIRA tickets, and Confluence authors, stored as vectors in ChromaDb facilitating **semantic search with GPT-3**, aiming to boost employee engagement by 75% and foster cross-team collaboration.

**Software Development Engineer** Tata Consultancy Services Ltd Pune, MH, India 07/2020 - 08/2022

- Played a pivotal role to develop a document parsing workflow for **Microsoft Revenue Team**, integrating **Azure Computer Vision APIs**, business rules, and ML to categorize contractual documents with 98% accuracy, expediting process and reducing manual review by 50%.
- Architected caching strategies to optimize storage and usage of read-intensive **JSON based business rules** from NoSql DB, utilizing **Redis cache**; resulted in a 20% reduction in processing time.
- Designed and developed over **20 RESTful API microservice** and web based application facilitating accountants to manipulate business rules, employing **.Net Core, ASP.Net and React** in an **Agile** development cycle as a **Full Stack Engineer**.
- Established async communication between 20 decoupled document parsing microservices, leveraging Azure Service Bus, and wrote Data access layer with **Azure SQL** and **Cosmos Db** elevating system responsiveness by 30%.
- Implemented over 50 unit and integration test cases with **xUnit and Moq**, increasing code coverage from 65% to 95% , alongside conducting performance tests with **Azure Load Testing** ensuring system stability, boosting service efficiency by 15%.
- Automated integration of contractual metadata from third-party systems, by creating scheduled data pipeline in Azure data factory orchestrating **ETL operations()** delivering 50% acceleration in data availability, 70% reduction in data inconsistency.

**Software Developer Intern** (N) Code Solutions Gujarat, India 01/2019 - 04/2019

- Managed the implementation of React hooks, Context API, and code splitting strategies to achieve ~6kb reduction in webpack bundle size.
- Created scalable APIs and background workers for managing first- and third-party proprietary vendor licenses using **.Net Core, Azure Functions**, and other **Azure cloud technologies** serving 100000 requests daily.

## Education

**Master of Science** San Jose State University San Jose, CA, USA 08/2022 - 05/2024

- Major in Computer Software Engineering

**Bachelor of Technology** Gujarat Technological University Gujarat, India 08/2016 - 06/2020

- Major in Computer Science

## Projects

- **MediConnectER**: Built an AI-enabled physician assistant at **TreeHacks Stanford** for **automated clinical summarization powered by Mistral-7b LLM** and question generation. Empowering physicians to achieve 60% increase in diagnosis accuracy and effective treatments.
- **SkinSense**: Spearheaded a team of four developers in the development of an award winning platform utilizing a **3-layered-CNN architecture** for accurate skin health assessments, achieving **87% prediction accuracy** across seven distinct categories.
- **FitMaster**: Developed a gym application using React for the UI, **Java Spring APIs** for integration, and **PostgreSQL** for data management.