Vishal Patel

shalp2003@gmail.com | linkedin.com/in/patvishal/ | vip11017.github.io/portfolio/ | 562-685-1287

WORK & LEADERSHIP EXPERIENCE

R&D AI Intern | Uzera — Remote
Intern — January 2025 – Present

- Engineered a Retrieval-Augmented Generation (RAG) Pipeline using LangChain, Qdrant, and OpenAI APIs with multi-agent orchestration, improving query accuracy by 22% and scaling workflows to handle 10k+ requests/day
- Fine-tuned transformer-based LLMs (OpenAI, Hugging Face) with PyTorch and Optuna, improving throughput by 15% and reducing training costs by 20% via early stopping and class weighting
- Built autonomous knowledge workflows in n8n with API integrations to Qdrant and OpenAI, reducing manual task intervention by 40%

AI-Backend Software Engineering Intern | Zenora Management — Remote
Intern — July 2025 – September 2025

- Developed a backend AI-powered Comparative Market Analysis (CMA) system using FastAPI and Zillow APIs, automating property valuation and reducing report preparation time by 50%
- Engineered data pipelines to extract and standardize property attributes into structured LLM-ready inputs, improving feature coverage in CMA reports by 35%
- Integrated Ollama via LangChain to generate CMA reports with valuation ranges and pricing strategies, cutting manual analyst workload by 40%
- Designed REST API endpoints for delivering CMA insights on demand, enabling seamless integration into real estate workflows and supporting scalable deployments with 99% uptime

Lead Technical Intern | UCSD ITS — La Jolla, CA
Intern — April 2025 – September 2025

- Spearheaded the architecture and development of an agentic AI platform using LangChain and FastAPI, orchestrating compound multi-agent systems for autonomous task execution and knowledge retrieval
- Led a team of 4 interns to prototype and deploy scalable LLM applications, accelerating model iteration cycles by 30%
- Authored comprehensive documentation and tutorials, improving system onboarding and future-proofing the AI infrastructure for rapid scaling, cutting onboarding time by 40%
- Cultivated agile development practices, reducing feature delivery cycle time by 20% and improving collaboration efficiency

ML Engineer Intern | Collegepath.ai — Los Angeles, CA
Intern — July 2023 – September 2023

- Developed a predictive modeling pipeline using Python and SQL (BeautifulSoup, pandas, scikit-learn), automating feature engineering and deploying logistic regression models with 80% accuracy as the foundation for a scalable analytics platform
- Delivered project insights and model outputs through Jupyter and Tableau dashboards, enabling rapid prototyping cycles and aligning MVP delivery to accelerate timelines by 20%

EDUCATION

University of California, San Diego — La Jolla, CA
B.S. in Cognitive Science, Specialization in Machine Learning and Neural Computation — **Major GPA: 3.9**
Minors - Data Science and Finance

- **Honors:** Provost Honors, Good Standing
- **Relevant Coursework:** Data Analytics, Supervised/Unsupervised Machine Learning, Reinforcement Learning, Deep Learning, Neural Networks, SQL, AWS, Data Management, Systems for Scalable Analytics, Business Analytics, Statistics

CERTIFICATIONS

- AWS Machine Learning Specialty earned on November 23, 2024
  - Data Engineering, Machine Learning, Cloud Engineering, Model Evaluation and Validation, Exploratory Data Analysis
- Machine Learning by Stanford University & DeepLearning.AI on Coursera earned on August 14, 2023
  - **Unsupervised Learning, Recommenders, Reinforcement Learning:** PCA, Clustering, Collaborative Filtering
  - **Advanced Learning Algorithms:** Decision Trees, Multiclass Classification, Artificial Neural Networks, SoftMax
  - **Supervised Machine Learning:** Regression, Classification, Gradient Descent, Logistic Regression

TECHNICAL SKILLS

Languages: Python, Java, SQL, Dart, HTML
ML & AI Frameworks: PyTorch, TensorFlow, scikit-learn, transformers, LangChain, spaCy
Data & Analytics Tools: pandas, NumPy, Matplotlib, Tableau, Dask, AWS
Developer Tools & Platforms: Git, VS Code, IntelliJ, Sublime Text, Jupyter Notebook, Graylog, Flutter, n8n

ACTIVITIES & INTERESTS

Awards: Eagle Scout Award
Activities: Project RISHI (UCSD) – Computer Literacy / Financial Literacy Committee Member, DS3 (UCSD) – General Member, ACM AI – Project Group Member
Hobbies and Interests: Gardening, Carpentry, Golf