Vishal Patel

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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 Machine Learning, Unsupervised Machine Learning, Reinforcement Learning, Deep Learning, Neural Networks, SQL, AWS, Data Management, Systems for Scalable Analytics, Business Analytics

WORK & LEADERSHIP EXPERIENCE

Lead Technical Intern | UCSD ITS   **La Jolla, CA**
Intern   April 2025 – Present

- Spearheaded the architecture and development of an agentic AI platform, orchestrating compound multi-agent systems for autonomous task execution and knowledge retrieval.
- Led a team of interns, driving design, prototyping, and scalable implementation aligned with cutting-edge LLM frameworks.
- Authored comprehensive documentation and tutorials, improving system onboarding and future-proofing the AI infrastructure for rapid scaling.
- Cultivated startup-style agile development practices, enhancing platform delivery speed and collaboration efficiency.

R&D AI Intern | Gainserv Infotech   **Remote**
Intern   January 2025 – Present

- Engineered a Retrieval-Augmented Generation (RAG) pipeline with multi-agent orchestration, integrating LLMs, vector databases, and custom agent workflows for scalable autonomous systems.
- Fine-tuned transformer-based LLMs (e.g., OpenAI models) using structured and unstructured datasets; implemented hyperparameter optimization (Optuna) and efficient training practices (early stopping, class weighting).
- Built intelligent, autonomous knowledge systems using n8n for multi-agent coordination, significantly reducing human intervention in task automation.

Classroom Maintenance Assistant | UCSD ITS   **La Jolla, CA**
Full-time Job   November 2023 – Present

- Maintained operational readiness of 40+ classrooms and 21 lecture halls, ensuring uninterrupted daily academic activities.
- Diagnosed and resolved technical issues with lectern software and AV systems, minimizing downtime and enhancing user experience.
- Implemented proactive maintenance workflows, achieving a 33% reduction in classroom trouble calls

Cybersecurity Intern | Opexus Casepoint   **Tysons Corner, Virginia**
Intern   September 2024 – November 2024

- Designed and implemented scalable log management solutions using Graylog (SIEM), enhancing real-time security monitoring and anomaly detection across enterprise-grade systems.
- Optimized event parsing and alert systems, achieving a 25% increase in incident response efficiency through GROK patterns

ML Engineer Intern | Admitscope   **Los Angeles, CA**
Intern   July 2023 – September 2023

- Led development of a predictive modeling pipeline leveraging web-scraped datasets and advanced feature engineering; deployed logistic regression models achieving 80% accuracy as a foundation for scalable predictive analytics platforms.
- Delivered project insights and model outputs in fast-paced, cross-functional team environments, aligning with rapid prototyping and MVP delivery best practices.

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
Developer Tools: Git, VS Code, IntelliJ, Sublime Text, Jupyter Notebook, Tableau, AWS, Dask, Graylog, Flutter, n8n
Libraries: pandas, NumPy, Matplotlib, Sci-kit learn, Tensor Flow, Flask, spacy, PyTorch, transformers, LangChain

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