# Mohsin Khawaja

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## Education

**University of California, San Diego** — **Aug 2021 – June 2025**

*B.S. Cognitive Science: Machine Learning & Neural Computation, Minor in Computer Science*
**Coursework:** Machine Learning, LLMs, AI Algorithms, Computer Vision, Data Structures, Brain Computer Interfaces, Quantitative Finance
**Leadership:** Founder & VP (Muslim Tech Collaborative), Board Member (SDx), Captain (Men's Club Soccer)

## Experience

**Aviz Networks** — **Nov 2025 – Present**
*AI Engineer Intern (Customer Success)* — *San Jose, CA*

- Built autonomous NetOps agent resolving **100+ Zendesk tickets** using telemetry parsing, CLI tool-calling, and reasoning workflows. Training the agent with the logic of a Networking Engineer level analysis.
- Developed **10+ LLM agents** for triage, RCA, config validation, and remediation across enterprise SONiC deployments.
- Integrated agents with streaming telemetry, device logs, vector retrieval, and **Network Co-Pilot Sync (NCP)** APIs.
- Implemented RAG pipelines, structured outputs, guardrails, and prompt routing for deterministic troubleshooting actions. Utilized MCP and built memory bases for the RCA workflow.
- Enabled customer workflows and live pre-sales demos by deploying production agents with CS and sales teams.

**Amazon** — **June 2025 – Aug 2025**
*Data Analytics (Contract)* — *Remote*

- Built analytics pipeline processing **12K+** employee feedback entries across global regions.
- Used NLP sentiment classification (**91% accuracy**) to generate insights for HR policy decisions.
- Developed employee persona clusters to identify engagement trends and pain points across distributed org structures.
- Presented findings to senior HR leadership influencing Q3 employee support strategy.

**UC Berkeley College of Engineering** — **June 2024 – June 2025**
*Machine Learning Engineer* — *Berkeley, CA*

- Developed real-time BCI control for robotic exoskeletons with **87% accuracy** and **120ms** latency.
- Optimized ML pipeline (PCA + CV), improving to **91% F1** and reducing model size **40%**.
- Built EEG data preprocessing tools integrating band-pass filtering, ICA, wavelet denoising, and spectral feature extraction. Led the team for gathering data and processing.
- Conducted experiment protocol for recording motor intention signals and cognitive activation states.

## Projects

**EvoScope – AI Trading System** | *PyTorch, RL*

- Developed LSTM + DQN system achieving **94.2% accuracy** and **2.52 Sharpe ratio**.
- Implemented real-time trade execution engine across Binance, Coinbase, and EVM-compatible DEXs.
- Designed dynamic position sizing and risk control mechanisms parameterized by volatility regimes.

**LLM Political Evaluation** | *NLP, Bias Detection*

- Designed evaluation framework for political bias across **5+** LLMs using **100+** controlled prompts.
- Measured response drift, ideological consistency, and token-level sentiment gradient shifts.
- Produced comparative scoring methodology to inform transparent model alignment research.

**NeuroFocus – EEG Attention Classification** | *TensorFlow*

- Classified cognitive attention states from EEG with **90% accuracy** for real-time neurofeedback.
- Implemented alpha, beta, and gamma-band feature extraction with multi-model evaluation (SVM, CNN, LSTM).

## Technical Skills

**Languages/Tools:** Python, JavaScript, TypeScript, SQL, C++, PyTorch, TensorFlow, React, Docker, Git, AWS, APIs, NLP, LLMs, Computer Vision, SONiC, MCP, RAG, Memory Systems, Function Calling, CLI, Prompt Engineering