

STEFAAN DAVIS

[linkedin.com/in/stefaan-davis-4b6a32186/](https://www.linkedin.com/in/stefaan-davis-4b6a32186/)
| sdavi238@fiu.edu | stefodan21.github.io

EDUCATION

Florida International University (FIU)
Bachelor of Science, Information Technology
• **Achievements:** Honors College Member

May 2026

EXPERIENCE

Eight Twelve Consulting LLC
Junior Systems Administrator

Mar 2025 - Present
West Palm Beach, FL

- Administered Windows, Linux, and AWS-native systems to ensure high availability and scalable performance, integrating automated workflows and cloud-native architecture to support AI-driven infrastructure.
- Provided Tier 3 support for cloud-native systems, resolving automation failures and infrastructure issues; debugged Python workflows and integrated AI/ML libraries for agent development.
- Monitored system health and resolved infrastructure bottlenecks to maintain secure, efficient environments for AI experimentation and deployment; collaborated cross-functionally to align with research and engineering objectives.
- Partnered with senior IT staff to maintain cloud infrastructure, enforce security best practices, and optimize performance for scalable AI workloads and agent-based automation pipelines.

PROJECTS

AI Forex Trading Bot (Python, RL) | Miami, Florida

Miami, Florida May 2025

- Optimized trend-following strategies by developing a PPO-based trading bot using Stable-Baselines3 with OpenAI Gymnasium, integrating custom neural networks and reward shaping.
- Integrated TensorFlow and PyTorch for deep-learning model development, processing 10+ years of historical market data.
- Accelerated trading execution by implementing GPU-optimized neural networks with DirectML, outperforming manual trading in speed and decision accuracy.
- Automated economic calendar updates with dukascopy, increasing real-time market responsiveness.

Fully Automated AI Support Agent | Miami, Florida

July 2025

- Designed a multi-agent AI system using LangChain, OpenAI APIs, and n8n to automate customer support workflows across chat, email, and voice, reducing manual intervention by 90%.
- Orchestrated six specialized agents (Intake, Sentiment, Resolution, Empathy, Ops, Escalation) triggered via AWS EventBridge for scalable, event-driven automation.
- Integrated Redis and Pinecone for short- and long-term memory management, enabling personalized responses based on historical context and sentiment analysis.
- Deployed a Dockerized Flask dashboard to monitor live interactions, resolution rates, and escalation paths, supporting real-time analytics and operational oversight.

TECHNICAL SKILLS

- **ML Architectures:** PPO, SAC, RAG, LangChain agents, transformer-based NLP, ONNX runtime
- **Time-Series Forecasting:** OHLCV modeling, pattern recognition, multi-year historical data ingestion
- **Data Engineering:** TA-Lib, pandas, NumPy, SQLite, sentiment analysis (VADER, OpenAI), Pinecone embeddings
- **Frameworks:** PyTorch, PyTorch Lightning, TensorFlow, Scikit-learn, Stable-Baselines3, Optuna, gymnasium, shimmy
- **Monitoring & Visualization:** wandb, plotly, Drawdown safety nets, real-time confidence reporting
- **GPU Acceleration:** torch-directml (AMD), pyopencl, mako, pytools
- **APIs & Dashboards:** Flask UI for live metrics, RESTful endpoints, webhook routing via n8n
- **Cloud & Automation:** AWS Lambda, Docker Compose, GitHub Actions, Terraform, Zapier
- **Trading Execution:** MetaTrader 5 integration (Windows only), dynamic position sizing, stop-loss/take-profit logic
- **Collaboration Tools:** Agile workflows (Scrum, Kanban), technical documentation, mentoring

ACTIVITIES AND LEADERSHIP

- Peer Mentor, AWS Cloud Projects & Terraform Best Practices
- Active contributor on GitHub for DevOps and ML projects