Dakota McDaniels

dakot.ai

Email : dakotajmcd@gmail.com
Mobile : +1-803-422-5536

EXPERIENCE

- **Pluto** — San Francisco, CA
  Co-Founder and Co-CTO — *May 2021 - August 2023*
  - **Fundraising and Leadership**:
    - Secured $5M in funding to accelerate the growth and development of the AI financial advisory platform.
    - Grew the user base to over 30,000 while scaling the platform to manage over $40M in user-linked assets.
    - Led a hiring initiative, conducting 100+ interviews and building a team of 10 key employees.
  - **Infrastructure and Cloud Computing**:
    - Architected and deployed 50+ microservices and cron jobs in Python, utilizing CircleCI for automated deployments.
    - Managed a robust Kubernetes environment on Digital Ocean, sustaining over 1,000 auto-scaling pods.
    - Developed a Kafka-based order management system, processing over 100,000 transactions daily, equating to more than $100M in daily trading volume.
    - Sustained 99.99% system uptime through comprehensive monitoring protocols, ensuring high availability and reliability.
  - **Product Development and AI Innovation**:
    - Launched a cutting-edge platform for practical and live trading of US equities and cryptocurrencies, leveraging advanced AI to drive user engagement and investment efficiency.
    - Introduced the first AI financial assistant, reducing data "hallucinations" by 90% and increasing response quality by 80%, using CoT, RAG, and ReAct techniques.
    - Created a proprietary Domain-Specific Language (DSL) for LLMs, enabling command generation for stock prices, news updates, and portfolio management.

- **Lowe's** — Mooresville, NC
  Information Security Analyst — *May 2020 - May 2021*
  - Published minimum security baselines for 180,000+ instances including operating systems, applications, and PCI-DSS compliant devices.
  - Designed security baselines for multiple Linux distros, NoSQL databases, NGINX, and PostgREST.
  - Led security compliance monitoring across a 70-team organization through routine reporting and notifications.

- **University of South Carolina** — Columbia, SC
  Internship – Networking Technician and Networking Engineer — *October 2018 - December 2020*
  - Supervised and mentored nine Computer Science interns, directing project workflows over six months.
  - Resolved 445 network and security incidents, accounting for 42.5% of the internship program's total output.
  - Managed network infrastructure with over 850 switches and 4,100 access points across the campus using industry-standard tools like SolarWinds, Cisco, and Aruba ClearPass.

- **Office of Naval Research** — Columbia, SC
  Undergraduate Research in Cyber Security — *August 2020 - October 2020*
  - Researched DDoS attack mitigation using Palo Alto's next-generation firewalls.
  - Developed training materials for CI engineers on high-throughput, low-latency network environments.
  - Awarded part of the $499,959.00 grant for "Cyberinfrastructure Expertise on High-throughput Networks for Big Science Data Transfers" (NSF 1829698).

PROJECTS

- **Quantitative Securities Trading System**:
  - Built a performant, event-sourced data pipeline for backtesting and live-trading with Python and Jupyter Labs.
  - Conducted extensive backtests with over 700,000 minutes of historical trading data to validate investment strategies.
  - Deployed a secure AWS infrastructure using ECS and Docker to manage over $50,000 of personal investment capital.
- **BetterReplies**: An iOS app featuring a fine-tuned AI assistant capable of generating personalized replies
  - Developed with Python and SwiftUI, automatically deployed using GitHub Actions and Terraform.
  - Integrated a robust, cloud-native backend architecture on AWS, including ECR, Lambda, S3, and API Gateway.
  - Performed comparative analysis of LLM providers such as OpenAi, Anthropic, and LLaMa to optimize AI response quality.

PROGRAMMING SKILLS

- **Languages**: Python, Swift, SQL, Terraform   **Cloud Providers**: AWS, Digital Ocean, Heroku
- **Databases**: MongoDB, Postgres, Supabase
- **Technologies**: Redis, REST, Kafka, Kubernetes, Git, Flask, CircleCi, Github Actions
- **LLMs**: Prompt Engineering, Fine-tuning, Data Gathering, Retrieval-Augmented Generation, Chain-of-Thought
- **Paradigms**: Functional Programming, OOP, Microservices, Infrastructure as Code, Cloud Native, CI/CD