

## EXPERIENCE

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### • 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

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### • 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

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**• 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, Microservices