Noah Shaffer

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Software Engineer transitioning into cybersecurity, currently pursuing a Master's degree in Cybersecurity to prepare for a role as a Cybersecurity Engineer. Brings a strong foundation in software engineering, problem-solving, and secure development practices, complemented by advanced cybersecurity training and hands-on experience.

WORK EXPERIENCE

Curvature Securities Aug. 2023 – Present
Software Engineer

Curvature Securities is a FINRA-registered broker-dealer focused on U.S. Treasury market-making and fixed-income trading for institutional clients. In addition, the firm maintains a family office arm, where I contribute by building event-driven data pipelines, client eligibility algorithms, and internal scoring models that enhance trading efficiency and investment decision-making.

- Developed a Python-based eligibility algorithm to validate prospective client onboarding, ensuring compliance with internal family office investor thresholds and regulatory requirements.
- Architected an event-driven data pipeline leveraging AWS EventBridge and Lambda to automatically ingest and update U.S. Treasury and repo market data (CUSIP, maturity, coupon, BVAL, discount, dollar, and internal pricing), storing results in Amazon S3 for accurate, audit-ready datasets.
- Produced interactive dashboards from CSV datasets using Pandas, translating raw Treasury quotes, repo spreads, and valuation data into actionable visualizations that supported trading strategies and allocation decisions.
- Designed internal scoring models to weight key market factors (e.g., repo spreads, BVAL vs. internal pricing divergence), enhancing signal prioritization and improving trade execution accuracy.
- Administered and secured Linux-based systems, deploying patches and scripts via SSH while upholding rigorous cybersecurity protocols to safeguard sensitive trading operations and client information.

RESEARCH EXPERIENCE

University of Las Vegas, Dust condensation Modeling
Programming Assistant to Cody Shakespear, PhD Candidate in Astrophysics | Remote | 2025

- Collaborated with Cody Shakespear, an astrophysics PhD student researching dust condensation in stellar environments, who required programming expertise to implement his modeling framework.
- Built a processing pipeline in PyTorch and Pandas to transform a 5D dataset of gas-to-dust condensation into a 2D matrix, capturing elemental mass distributions as a function of radial distance.

- Developed scripts to extract stellar parameters (temperature, pressure, sigma, and radius) from structured text files and format them into tensors for use in neural network simulations.

- Delivered reproducible, well-documented code to ensure the modeling work could be extended and validated for ongoing astrophysics research.

EDUCATION

Florida State University — 2024
B.S. Computer Science — *Tallahassee, Florida*
- GPA: 3.7/4.0

University of San Diego — 2026
Cybersecurity Engineering — *San Diego, California*
- GPA: 4.0/4.0

CERTIFICATIONS, SKILLS, & Technologies

- Tech Stack:
  - Nessus
  - Wazzuh
  - Splunk
  - Wireguard
  - wireshark
- Certifications:
  - Security Plus
  - CCNA