Noah Shaffer
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EXPERIENCE

Software Engineer **- Curvature Securities** Aug. 2023 – Present

Curvature Securities is a FINRA-registered broker-dealer focused on U.S. Treasury market-making and fixed-income trading. Within its family-office arm, I engineered event-driven AWS EventBridge + Lambda pipelines automating Treasury and repo data flows to S3 for real-time accuracy and audit readiness; developed Python algorithms for client onboarding eligibility and compliance; created internal scoring models weighting repo spreads and pricing divergences to inform trade decisions; built Pandas dashboards turning raw market data into actionable visualizations; and secured Linux systems with automated SSH deployment and patching processes.

Machine Learning & Data Modeling Assistant **- University of Nevada, Las Vegas** *Oct. 2024 - April 2025*

Supported research on dust condensation modeling in stellar environments. Developed a PyTorch/Pandas data pipeline for stellar dust-condensation modeling, parsing 5D simulation outputs into 2D tensor matrices capturing elemental mass distributions vs radial distance. Extracted key stellar parameters from structured text logs into tensors and ensured reproducibility through well-documented code for neural network simulations.

PROJECTS

Wazuh_Siem | Wazuh (SIEM/XDR platform), WireGuard VPN, Splunk, Nessus (SIEM and security tools).

Built a complete SIEM environment integrating Wazuh, WireGuard VPN, Splunk, and Nessus. Aggregates and analyzes 3,000+ daily syslog events for threat detection, correlates vulnerability data with alerts, and provides dashboard visualization and VPN health monitoring. Demonstrates end-to-end log collection, threat correlation, and incident-response automation in a simulated enterprise network.

DAST-SAST-Security-Testing-Pipeline | *Python, Bash; SonarQube (SAST), OWASP ZAP (DAST), Docker, GitHub Actions, Pandas*

Built an automated SAST+DAST security-testing pipeline that scans a vulnerable web app (SonarQube + OWASP ZAP), parses JSON scan outputs with Pandas, and produces auditor-ready visual reports and GitHub Action artifacts. Orchestrated via Docker and GitHub Actions to run on push/PR, generating severity/trend visualizations and consolidated findings to make security testing repeatable and developer-friendly.

Phishing-detection-engine | Python, Flask, BeautifulSoup4, Requests, Bootstrap 5, Font Awesome, VirusTotal API

Developed an advanced URL scanning and reputation analysis system integrating OSINT feeds and automated threat intelligence to detect phishing, malware, and suspicious domains in real time.

automated-pentest-toolkit | Python, Bash; external tools Nmap, SQLmap, Hydra, Dirb, Gobuster, Nikto

Built a command-line penetration testing framework automating reconnaissance and exploitation via Nmap, SQLmap, and Hydra, producing structured reports for red-team and compliance assessments.

finance-data-pipeline | Python, Pandas; AWS services (EventBridge, Lambda, S3), FastAPI; Terraform; visualization with Plotly and Matplotlib

Implemented an event-driven AWS architecture that processes and visualizes Treasury and repo market data with Pandas dashboards and scoring models for real-time investment analytics.

EDUCATION

Florida State University 2024
B.A. Computer Science *Tallahassee, Florida*

University of San Diego 2026
M.S Cybersecurity Engineering ***CAE / NSA accredited*** *San Diego, California*