Nathan Wang

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Education

University of Wisconsin–Madison — Madison, WI
Bachelor of Business Administration in Computer Science and Business — *Sept. 2022 – Expected May 2026*

Experience

Software Engineer Intern — June 2025 – Aug. 2025
AT&T — *Dallas, TX*
- Spearheaded migration of 100+ million documents to INLAP using Java Spring Boot and MongoDB, boosting data scalability and increasing insertion speed by 70%
- Engineered Python automation integrating with Microsoft Outlook to extract and process SPANS proposal PDFs, reducing manual effort by 90% and enhancing data accuracy
- Invented a patent-pending AI network analyzer to automate incident response and enable proactive defense

Software Developer Intern — May 2024 – Aug. 2024
Lumen Technologies — *Remote*
- Built and integrated robust REST APIs using Django and Python for dashboards and automation projects aimed at achieving substantial cost reductions and enhancing system efficiency
- Optimized backend scripts in Python to audit systems, logging over 10,000 errors into a MongoDB database
- Designed MongoDB databases to enhance API interactions and streamline data storage and retrieval processes

Cybersecurity Analyst Intern — Feb. 2024 – May 2024
University of Wisconsin – Madison Office of Cybersecurity — *Remote*
- Deployed and configured Palo Alto firewalls and Panorama management systems, ensuring comprehensive network protection and centralized management across the campus
- Utilized Elastic to conduct vulnerability assessments, identifying critical exposures and facilitating remediation
- Directed 150+ incident response operations, leveraging Cherwell for streamlined incident management

Cybersecurity Engineering Intern — May 2023 – Dec. 2023
Exact Sciences Corporation — *Madison, WI*
- Developed a CrowdStrike API-driven Python script automating host/device decommissioning, achieving 500+ device decommissions, optimizing license costs, and enhancing real-time vulnerability feedback
- Designed a VBA-based macro, integrating Okta and Active Directory for comprehensive account analysis, contributing to a $140,000 cost reduction through algorithmic identification and removal of over 2,000 accounts
- Collaborated with the Cloud Engineering and ServiceNow Development teams to promote cohesive integration of security automation solutions

Projects

AttentioFlow AI | *Python, PyTorch, psutil, pynput, plyer* — Oct. 2024 – Present
- Architected an adaptive AI system for cognitive optimization, performing real-time inference with a PyTorch Neural Network and Tkinter-based interface
- Engineered temporal features from digital interaction data (psutil, pynput), training custom deep learning models in PyTorch for cognitive state inference
- Deployed proactive AI nudges (plyer) for attentional regulation, predicting distraction onset through adaptive human-computer interaction and PyTorch model persistence (torch.save/load)

UFO Sightings Analysis | *Python, SQL, Git* — Sept. 2022 – May 2023
- Executed Natural Language Processing analysis on 80,000+ UFO descriptions with Python, NLTK, and unsupervised learning techniques (K-Means clustering)
- Developed ML models for sentiment analysis using classical classifiers (Naive Bayes, Logistic Regression, SVM)
- Modeled predictive analytics using linear regression to forecast UFO encounters from geospatial coordinates

Technical Skills

Languages: Python, Java, HTML/CSS, JavaScript, SQL, VBA
Developer Tools: Docker, Git, GitHub, Postman, Visual Studio Code, PyCharm, IntelliJ, Eclipse
Other Technologies: Active Directory, Okta, ServiceNow, CrowdStrike, Itential
Libraries: Pandas, NumPy, Matplotlib, BeautifulSoup4, PyMongo, PyTorch