BRYAN CHAN

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EXPERIENCE

CAE in Cybersecurity Community June 2025 - June 2026
Cybersecurity Researcher (INSuRE+E) - AI in Enterprise Data Normal, IL

- Led a research cohort of 4 students to design and compose a structured taxonomy of enterprise risk vectors in RAG systems.
- Built an ETL pipeline and fine-tuned a BERT model using PyTorch and SLURM on an HPC cluster, classifying 2,600+ articles for malicious text detection with 95% accuracy.
- Co-authoring a research paper analyzing security vulnerabilities and mitigation frameworks for multi-agentic AI architectures.

Stevens Institute of Technology September 2023 - May 2025
Course Assistant - Introduction to Python, Data Structures, Intermediate Statistics Hoboken, NJ

- Instructed and mentored 400+ undergraduate students in fundamental concepts of Python, Java, and R during office hours.
- Evaluated weekly programming assignments and exams, delivering detailed code reviews to improve student comprehension.
- Collaborated with 3 professors to design and deploy interactive programming labs, increasing student engagement.

Stevens Institute of Technology November 2022 - August 2023
Data Analytics Undergraduate Researcher Hoboken, NJ

- Formulated and executed a research methodology with 2 professors and 6 peers to analyze large-scale social networks and economy dynamics within the game "EVE Online".
- Engineered a parallel-processed Python web scraper to harvest and clean a dataset of 72 million transaction records via REST APIs.
- Applied community clustering and centrality algorithms in R to map player interactions and alliance structures.

PROJECTS

bryanchan.org | NextJS, MongoDB, Docker

- Developed a full-stack personal portfolio and blog site using Next.js and MongoDB to showcase projects and blogs.
- Implemented automated CI/CD pipelines utilizing GitHub Actions and Docker Watchtower for zero-downtime updates.

Monthly Return Prediction of Stocks | Python, ML, Statistics

- Developed and evaluated machine learning models to predict monthly returns using a comprehensive financial dataset (2009-2021).
- Conducted in-depth model diagnostics, including residual analysis and time-sliced performance evaluation, to assess model stability and generalization across varying market conditions (e.g., COVID-19 period).

Trajectory Modeling of UAV Swarms | ORAN, Python (XApps, PyTorch, Scikit-learn), Ardupilot

- Deployed and configured a 5G radio base station utilizing an open-source Open Radio Access Network (O-RAN) architecture.
- Developed a Python xApp to process telemetry data in real time and integrate machine learning models, improving UAV trajectory prediction accuracy.

Osu! Beatmap Generator | Jupyter Notebook, Python, AI

- Designed a hybrid CNN-LSTM deep learning model in Python to automatically generate playable gaming levels ("beatmaps") from raw MP3 audio files.
- Processed a dataset of 5,000+ beatmaps, writing ETL scripts to parse custom file formats into structured training arrays.

EDUCATION

Stevens Institute of Technology Hoboken, NJ
Master of Science in Data Science Graduated May 2026
Bachelor of Science in Computer Science Graduated May 2025

TECHNICAL SKILLS

Computer Languages	Python, Java, R, C++, JS/TS, OCaml, Bash
Databases	SQL, Redis, MongoDB
Frameworks & Tools	PyTorch, Tensorflow, Node.js/NPM, RStudio, Jupyter, UNIX/Linux, Spark
Certifications	Microsoft Azure Data Science Associate (DP-100)