BRYAN CHAN

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EDUCATION

Stevens Institute of Technology — Expected May 2025

Bachelor of Science in Computer Science (GPA: 3.73/4.00)

- **Relevant Coursework**: Statistics, Database Management, Natural Language Processing, Operating Systems
- Course Assistant for Introduction to Python (CS115), Data Structures (CS284), Intermediate Statistics (MA331)

EXPERIENCE

Stevens Institute of Technology — Sep 2023 - Present

Course Assistant — *Hoboken, NJ*

- Guided 400+ students through course-related concepts (Python, Java, R) during lab sessions and lectures.
- Graded assignments and exams, providing constructive feedback to enhance student learning.
- Partnered with faculty to design and implement lab activities, resulting in a 20 improvement in student engagement and understanding.

Information Security Research Education Summer Workshop — Jun 2024 - Aug 2024

Researcher — *Ames, IA*

- Coordinated with 11 students to conduct an empirical real-world analysis of the Border Gateway Protocol fabric.
- Utilized PyPy3 and Julia to run 2000+ simulations of a realistically created internet network.
- Produced a paper that covered the logistical pros and cons of different network security methods of autonomous systems.

Analyzing Collapse of Online Gaming Communities — Nov 2022 - Aug 2023

Undergraduate Researcher — *Hoboken, NJ*

- Collaborated with a team of professors and students to devise a nine-month research plan on analyzing the creation and decay of social networks in the game "EVE Online".
- Leveraged a Python-based parallel processing web scraper to gather a dataset of 72 million killmails.
- Employed R to construct networks mapping relationships among players and alliances in online gaming communities.

C3 Technologies — Jul 2021 - Mar 2022

Data Intern — *North Brunswick, NJ*

- Devised a relational database using Microsoft Access and harnessed Visual Basic for Applications (VBA).
- Automated data report generation of customers and tests, speeding up querying by 90%.
- Maintained and enhanced data storage for over 1500 customer IDs, tank test results, and fuel quality statistics.

PROJECTS

Trajectory Modeling of UAV Swarms | ORAN, Python (XApps), Ardupilot

- Set up a 5G radio base using an open source Radio Access Network.
- Developed a python application to conduct real-time machine learning integration with drone data in order to make flight trajectories more accurate for unmanned aerial vehicles.

Osu! Beatmap Generator | Jupyter Notebook, Python

- Designed a Convolutional Neural Network and a Long Short Term Memory model to turn an mp3 file into an osu! beatmap.
- Imported over 5000 existing maps and created an automated script that exported specific maps into input data.

Court Reservation Tool | ReactJS, ExpressJS, MongoDB

- Developed an express server with HTML templating and a MongoDB database in the backend.
- Increased efficiency of court reservations and tournament generation for the Stevens Badminton Club by **50%**.

TECHNICAL SKILLS

Computer Languages	Python, Java, R, C, C++, JS/TS, Scheme, OCaml, ARM Assembly (x86)
Protocols & APIs	XML, JSON, REST
Databases	SQL, Redis, GraphQL, MongoDB
Frameworks & Tools	Node.js/NPM, RStudio, Solidworks, Jupyter, Windows, Linux
Concepts	Full Stack, Software Development, Debugging, Machine Learning, Relational Databases