

Bryan Zhong

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A persistent researcher with experience in formal academic research.
Good team spirit and a love for working under pressure and challenges.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA, QPA: 3.71/4.00 Expected May 2028

Bachelor of Science in Information Systems

- Aiming for Additional Major in Artificial Intelligence

Shady Side Academy, Pittsburgh, PA, GPA: 3.91/4.30

Graduated June 2024

High School Diploma

EXPERIENCES

Cybersecurity Playbook Research Project, Pittsburgh, PA August 2024 - Present

Researcher

- Designing the “**Prompt Planning Machine**” to process cyber threat reports and generate **optimal response playbooks** focused on **risk** and **cost efficiency**
- Developing **structured LLM prompts** to extract **attack actions**, construct **attack graphs**, and model **threat sequences**
- Utilizing **MITRE ATT&CK** and **D3FEND** frameworks to align attack analysis with standard cybersecurity practices
- Utilizing **Alloy** and **PRISM** to optimize playbooks by balancing **risk reduction** and **operational costs**
- **Creating a prototype system** to enhance cyber resilience through **actionable, data-driven insights**
- Currently working with **Dr. David Garlan**, Associate Dean for master’s Programs in the School of Computer Science, **Dr. Shihong Huang**, Teaching Professor of Information Systems, **Dr. Bradley Schmerl**, Principal Systems Scientist, **Dr. Ehab Al-Shaer**, Distinguished Career Professor of Information Networking Institute, and more

Published Conference Paper, Pittsburgh PA

January 2023 - October 2023

Researcher & Author

- Conducted research with Adjunct Professor **Dr. Ganesh Mani** in CMU
- Trained **machine learning models** such as **XGBoost** and **CATBoost** for optimizing a **business research model**
- Examined Log Loss optimizations, hyperparameter tuning, and **model interpretability** with confusion matrices
- Published & presented “A Dynamic Framework: Advancing Machine Learning in Commodity Import Decision-Making” as the **first author** at an **international IEEE conference Transdisciplinary AI 2023**

Publish Paper, Pittsburgh PA

June 2022 - October 2022

Researcher & Author

- Conducted research with **Dr. Joshua Eaton**, RPI, Department of Industrial and Systems to **analyze market trends**
- Employed **language R**, performed big data analysis with real-life datasets, and published a paper in JSR in 2022

RELEVANT SKILLS & COURSE WORK

Computer: Java, JavaScript, Python, HTML, R, Machine Learning, GitHub, Data Structures, Algorithms

Mathematics and Statistic: Optimization, Data Analysis, Multivariable Calculus, Set Theory, Number Theory, Linear Algebra

Interest: CMU Frisbee A Team, Violin, Soccer and Frisbee in High School