Lake Yin

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EDUCATION:

- **Rensselaer Polytechnic Institute, Troy NY (2019 - 2023)**
  Bachelor of Science in Computer Science - 3.64 GPA
  Dean's Honor List, Member of Upsilon Pi Epsilon

RELEVANT COURSEWORK:

- **Fall 2019:** Data Structures
- **Spring 2020:** Foundations of Computer Science, Computer Organization
- **Summer 2020:** Intro to Algorithms, Principles of Software, RCOS, Linear Algebra
- **Fall 2020:** Data Mining, Frontiers of Network Science
- **Fall 2021:** Programming Languages, Projects in Machine Learning and AI
- **Spring 2022**: Operating Systems, Graph Theory
- **Fall 2022**: Network Resilience, Information Retrieval

WORK EXPERIENCE:

- **Research Intern** at **MIT Lincoln Labs:**
  - Working with Group 41, "Artificial Intelligence Software Architectures and Algorithms".
- **Undergraduate Research Assistant** at **Rensselaer Polytechnic Institute**:
  - Working with Professor Boleslaw Szymanski and the Network Science and Technology Center (NeST) of RPI on the DARPA INCAS program to examine how people's political "genotypes" evolve over time in a network. Developed a novel method for the embedding of social media trends as a knowledge graph using social media data. Integrated features based on this graph into various regression models.
  - Worked with Professor Boleslaw Szymanski and the Network Science and Technology Center (NeST) of RPI on developing a project for the DARPA SocialSim challenge to model and simulate social networks under external stressors. Designed and conducted multiple simulation experiments. Developed and tested multiple new models for predicting future event volume and response structure. Created presentations for stakeholders.
  - Developed a project with Professor Jianxi Gao to research, understand, and analyze how browsing habits can result in echo chambers in regards to political recommendations using Python and Selenium. Analyzed different models for tagging graphs of political content.
- **Software Engineering Intern** at **Liberty Mutual:** Contributed development to multiple Agile sprints and helped debug and test. Conducted performance and runtime evaluations for serverless based systems. Analyzed and identified areas of cloud cost reduction. Utilized Javascript, GraphQL, PostgreSQL, Apollo Server, AWS Lambda.

PUBLICATIONS:

- Shao, H., *et al (including Lake Yin)*. (2021, December). Simulating online social response: a stimulus/response perspective. In *2021 Winter Simulation Conference (WSC)* (pp. 1-12). IEEE.

PROJECTS:

- **CSSAW - Citizen Science for South African Water (Summer 2020, Open Source):** Worked on developing tools to pull dam water level data from archives and normalization of said data utilizing Pandas and Python. Visualized data using Plotly to present progress to the community. Assisting in development of a machine learning model to predict river water levels using data from various sources.

TECHNICAL SKILLS:

- Proficient in: Python, Java.
- Prior experience with: C , C++, SQL, JavaScript.
- Utilized: Unix, Git, Eclipse, Gradle, GraphQL, AWS Lambda.

ACTIVITIES & LEADERSHIP:

- Rensselaer Sci-fi and Anime Association - President
- HackRPI - Director of Sponsorship