

---

## Education

### CARNEGIE MELLON UNIVERSITY

Master of Science in Information Security Policy & Management|

Pittsburgh, Pennsylvania  
August 2023 - May 2025

### RENSSELAER POLYTECHNIC INSTITUTE

Bachelor of Science in Computer Science

Bachelor of Science in Physics

Troy, New York  
September 2018 - May 2023

- Relevant Courses: Network Science, Cryptography and Network Security, Database Systems, Application Programming Using Java, Operating Systems, Numerical Computing, Dynamic Behavior Python Programming, Data Structures

---

## Publications

Yi Yang, Ana Milanova, Martin Hirzel. "Complex Python Features in the Wild." 2022 IEEE/ACM 19th International Conference on Mining Software Repositories (MSR), Page 282, May 2022

---

## Skills

- Has demonstrated team communication skills by being a small part of a large team
- Has deep knowledge of server/client-side interaction implementations by developing servers with accommodating live database and Linux systems
- Has demonstrated understanding of client-side security by creating encrypted database/storage on all clients
- Has demonstrated team communication skills by leading a success team with different people from different technical backgrounds and age ranges
- Has deep experiences with developing client applications from ground up, including: QT, React Native, Angular, and others
- Has deep understanding of cost-effectiveness of various server applications and client implementations
- Programming languages: C, C++, Java, Objective-C, JavaScript, TypeScript, Python, SQL, Objective-C, and others

---

## Research Experiences & Projects

Personal Data Manager Notebook (PDM)

Fall 2019 - Present

- Implemented a multithreaded 256-bit encryption algorithm in C++ for all PDM projects
- Contributed 2200+ GitHub commits to project over two years
- Developed Angular web application using TypeScript with WebAssembly for encryption algorithm and end-to-end capability
- Designed and implemented the backend servers conforming to end-to-end encryption features
- Developed QT desktop application using C++ with custom encrypted SQLite for end-to-end encryption service
- Developed React Native mobile application for iOS and Android using Swift, Java, and TypeScript with encrypted local persistent data stores, uses natively compiled encryption binaries for each platform

Research, Rensselaer Polytechnic Institute

June 2021-May 2022

- Produced and formulated proprietary data mining and processing tools
- Analyzed over 3 million Python GitHub repositories for validating possibility of a static Python runtime
- Wrote machine learning algorithms to predict Python project's dynamic feature usages with 92% accuracy
- Published results "Complex Python Features in the Wild" as the first author at 2022 IEEE/ACM 19th International Conference on Mining Software Repositories

---

## Work Experience

Rensselaer Polytechnic Institute

Troy, New York  
September 2022 - December 2022

### Researcher

- Built web application for uploading and downloading files using Java, JavaScript, and Html as a low-cost solution for mass distribution of information to students
- Built a database can efficiently analyze over 2.8 million entries
- Designed and created data mining software using C++, Python, and SQL for retrieving information from GitHub repositories for further analysis purposes

BenTeng Media Group

Hohhot, Inner Mongolia, China

Media company/TV station with over 1 million followers on multiple media platforms

June 2023 - August 2023

### Head Editor, Writer

- Lead teams of 4 ~ 6 people to conduct interviews and shoot footage on short business trips
- Wrote and published articles regarding city-wide events and news including civil disputes, agriculture, and nature science
- Created and edited multiple official TV news segments on a wide variety of topics