

Jeff Gao

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EDUCATION

Rensselaer Polytechnic Institute

Expected Graduation May 2023

Bachelor of Science in Computer Science

- Concentration in Machine Learning Data, Minor in Economics
- GPA 2.9

SKILLS: jQuery, Python, C++, R, Java, ML Algorithms and Linear Algebra

EXPERIENCE

- **Fall 2022: Rensselaer Center for Open Source** - OpenCircuits
 - Refactored major part of codebase
- **Fall 2022: IsperLab**
 - Implemented and trained crop detection models using SSD and YOLOv6 for a pre funding startup
- **Summer 2022: Rensselaer Center for Open Source** - Fellowship.ai
 - Maintained and extended the functionality of a image GAN model
- **Summer 2021: Rensselaer Center for Open Source** - IBM Open Horizons
 - Contributed to open source software with additional documentation and build scripts for Windows 10 developers - See GitHub
- **Spring 2021: Rensselaer Center for Open Source** - OpenCircuits
 - Developed and maintained a React.js web application using GitHub
- **Sept 2018 - May 2019: HS Senior Capstone Software Engineering Project**
 - Developed the JavaScript client side functionality required for a Discord-esq chatroom with FireBase backend integration over jQuery.
 - Drafted preliminary CSS and HTML templates for use with the project.
 - Collaborated workload with 3 other developers.

PERSONAL PROJECTS

- **Mar 2018 - Jun 2018**
 - Developed an Android based scientific calculator in Java for a school project in Android Studio, including all application functionality and graphics.
- **Jun 2020 - Present**
 - Developing mods and 3rd party apps for use in the game, Minecraft
 - Developing 3rd party tools for use in the game, EVE Online
 - Developing several tools for the game, *Genshin Impact*
 - Volunteer Developer for <https://github.com/dresdek/Ion>

RELEVANT COURSEWORK

Rensselaer Polytechnic Institute

- **Data Structures (Spring 2020)** - Implemented equivalents of STL data structures as well as custom data structures with considerations for efficiency and/or ease of use. Developed skills necessary to select and use the most appropriate data structure from the C++ standard library, as well as from several other languages (STL) for a variety of real word tasks.
- **Foundations of Computer Science (Fall 2020)** - Use of set theory, combinatorics, and probability theory, computational complexity, and formal proofs of algorithms. Developed skills necessary to prove functions matched predicates
- **Principles of Software (Spring 2021)** - Implemented programs with regard to specifications within design principles and patterns with simultaneous use of version control. Use of testing to verify program correctness.
- **Introduction to Algorithms (Spring 2021)** - Analyzed and designed efficient algorithms with various algorithm design techniques for a variety of computational problems
- **Introduction to Data Mathematics (Spring 2021)** - implemented and designed several well performing statistical and classification models in the R language using the 'caret' library as well as using neural networks to great effect
- **Machine Learning from Data (Spring 2022)** - implemented basic models of learning from data, formulated a learning problem precisely, in terms of inputs and outputs, selected learning models and algorithms based on data
- **Data Analytics Research (Fall 2022)** - Processed medical datasets according to scientific papers and employed several visualization, analytics, and modeling methods for purposes of examining bias in ML models.

