

Ian McCaffery

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EDUCATION

Rensselaer Polytechnic Institute (RPI) *Troy, New York*

Bachelor of Science in Computer Science with a focus on Systems and Software *GPA: 3.7*

Honors: Rensselaer Leadership Award, Rensselaer Dean's List

SKILLS & INTERESTS

Languages: C, C#, C++, Java, Python, PostgreSQL and SQLite, SQLite, JavaScript, CSS, HTML, PHP

Relevant Coursework: Data Structures, Computer Organization, Design & Analysis of Algorithms, Principles of Software, Software Design & Documentation, Graph Theory, Operating Systems, Database Systems, Distributed Systems & Algorithms

EXPERIENCE

- **Web Development at deFacto Global**, Troy, NY (May-December 2021)
 - o Full-stack development and implementation of an eCommerce-based licensing webservice for the deFacto Tabular Modeler product. Worked in an Agile environment using the Scrum framework. Used SQL, Apache, created a .NET webservice, and a PHP WordPress plugin for communication via SOAP. Refactored existing codebase for web use.
- **Research at Rensselaer Polytechnic Institute**, Troy, NY (January-May 2021)
 - o Research under Professor George M. Slota. Implementation of several labelling algorithms and analysis of their in-situ performance relative to measured properties of the labelling with the end goal of accelerating graph computations via more efficient cache utilization. Development in C++.
- **Research at Rensselaer Polytechnic Institute**, Troy, NY (May-September 2020)
 - o Full-stack development of an educational puzzle game for Prof. Bram van Heuveln's Minds and Machines' curriculum. Organized my team's efforts and developed the core C++ algorithm for efficient production and solving of unique puzzles.

LEADERSHIP & PROJECTS

- Team Lead of Open-Source team development of graph-modelling web app [Graf](#). (May-August 2021)
 - o Pitched the project, recruited team members, and led team design of a project that received a 97.8% grade in Software Design & Documentation course.
- Network Administrator & Executive Board Member of Embedded Hardware Club at RPI. (September 2019-ongoing)
 - o Designed and created secure access system for club office, integrating campus ID cards to allow club members to access the office without needing a key. Led push for increased automation in club activities, including equipment checkout, club fee payment, and new member additions.
- Philanthropy chair of Alpha Epsilon Pi (Rho Pi chapter). (January 2020-ongoing)
 - o Organized and participated in several community service projects and helped raise money for COVID-19 research, in an effort to give back to both our local and global community.