# Sean D. Heffernan

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### **EDUCATION & ACTIVITIES**

# Rensselaer Polytechnic Institute, Troy, NY

2018 - Present (Expected Graduation Spring 2022)

B.S. Dual Computer Science and ITWS

Current GPA: 3.73

#### Relevant Completed Coursework

- Web Systems Development and Web Science Systems Development
  - Collude.it Programmed a Web IRC which allows for group communication as well as meeting scheduling through user preferences and voting, utilizing the AMP Stack
  - Degreezy Created a degree progress tracker as well as semester schedule planner for RPI students, allowing for students to easily view progress towards degree. Written using the MEAN Stack
- o Data Structures
  - Developed problem solving skills by constructing complete C++ programs which could tackle exercises shaped around real-world problems
  - Learned how to analyze the performance of algorithms and data structures, as well as design and implement our own efficient custom data structures
- Computer Organization
  - o Learned C, Assembly, and concepts of Boolean algebra
  - o Applied concepts of multi-cycle and pipelined data path and control to design more efficient programs
- Foundations of Computer Science
  - o Applied discrete mathematics and proofs to calculate combinational arguments and develop formal methods of computation.
- o Introduction to Algorithms
  - o Analyzed the efficiency and runtime of different algorithms
  - Solved problems modeled after real life situations utilizing different design techniques including, but not limited to, greedy, divide-and-conquer, and dynamic programming techniques.

#### **Current Coursework**

o Principles of Software

Operating Systems

## Accomplishments:

- o Awarded the Rensselaer Leadership Award in 2018, 2019
- o Dean's Honor List in 2019
- Member of Gamma Nu Eta and Upsilon Pi Epsilon (ITWS and Computer Science Honor Societies)

# Extracurriculars:

- o RPI Club Water Polo Team
- o Japanese Culture Association
- Web Technologies Group

## **SKILLS**

#### **EXPERIENCE**

# Project Manager, Shuttle Tracker (Rensselaer Center for Open Source)

2019 - Present

- A program used by students at RPI to keep track of the shuttles that run throughout campus as well as their routes and stops
- Made ETA viewing accessible through the creation of two endpoints which display ETAs
- New features implemented under leadership include a dark mode, smoother tracking of shuttles, and enhanced admin features
- Uses Go, Vue, TypeScript, and Postgres