

Benjamin Kelly

COMPUTER SCIENCE AND GAME DESIGN STUDENT

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Education

Rensselaer Polytechnic Institute

B.S. in Computer Science

- GPA: 4.0/4.0

Troy, NY

Aug. 2018 - May 2022 (Projected)

Skills

Programming

C/C++, C#, Java, Python, Linux, Unity3D, Unreal Engine 4, OpenGL

Coursework

Introduction to Algorithms, Advanced Computer Graphics, Economics and Computation, Game Architecture, Linear Algebra, Game Development I, Introduction to Artificial Intelligence

Experience

Western Digital

Firmware Engineering Intern

- Helped design and implement firmware for hard drives, specifically related to formatting
- Deployed C++ code onto an embedded environment
- Worked in a fast paced Scale Agile Framework (SAFe) including training in Agile

Longmont, CO

September 2020 - Present

Boston Biomedical Inc.

Commercial IT Intern

- Developed an integration strategy between company website and Workday applicant tracking system.
- Redesigned the company's online career page.
- Communicated with human resources and marketing team to gather requirements for the website and ensure easy transition.

Cambridge, MA

Jun. 2019 - Aug. 2019

Rensselaer Polytechnic Institute

Undergraduate Teaching Assistant

- Worked as an undergraduate TA for classes including Data Structures, Principles of Software, and Introduction to Artificial Intelligence
- Designed and graded exams and homeworks, as well as run office hours and labs.
- Worked one-on-one with students reinforcing new concepts, providing feedback, and helping to debug code

Troy, NY

Jan. 2019 - Present

Amazon Web Services

Software Development Engineering Intern

- Worked as intern within Amazon Games Publishing Services on features related to account linking and in-game social features
- Developed and owned project to integrate QR codes into user experience flow, working with UX and Project Management to design requirements.
- Worked on needed bug fixes and feature improvements related to AGPS Persona services

San Francisco, CA

May. 2021 - Aug. 2021

Research and Projects

HEALS Project

Undergraduate Researcher

- Worked with the HEALS project, a collaboration between IBM and RPI to use artificial intelligence and semantic web technologies to aid in determining treatment for patients with diabetes.
- Helped design and implement a UI interface for physicians' use in exploring treatment options.
- Integrated UI service with patient RDF graphs by designing RDF structure and querying using SPARQL.
- Helped design and verify unit tests for an ontology autonomic deduction tool within whyis, a graph creation and reasoner tool

Troy, NY

May 2020 - Aug. 2020

Blockchain Biomedical Data Sharing

Undergraduate Researcher

- Worked with a research team in RPI's IDEA center developing a biomedical research data sharing system built with semantic web technologies on the Ethereum blockchain using smart contracts
- Designed and implemented an ontology to represent the biomedical data lifecycle, including types of data sharing agreements
- Researched intersection of blockchain technologies and ontologies and built on existing work when designing the new system

Troy, NY

Jan. 2021 - May 2021

Gerrymandering Under Uncertain Preference Profiles

Research Project Under Supervision of Professor Lirong Xia

- Researched the problem of gerrymandering as a graph problem under imperfect voter information
- Worked on problem formalization, algorithm design, theoretical complexity, and experimental results
- Implementation done in Python3

Troy, NY

Jan. 2021 - Present

Classifying Virtual Reality Movements with Limited Sample Size

Final Research Project for Advanced Computer Graphics

- Designed a system to classify virtual reality hand motions at runtime based on a small example pool
- Used self-recorded and existing motion capture databases to gather example motions
- Built within Unity 3D in C# using Unity's SteamVR plugin

Troy, NY

Mar. 2021 - May 2021

Submittity

Open Source Online Grading Platform

- Designed online office hours queue system now used by many of the computer science classes on campus
- Designed online polling system to aid in transition to hybrid classes for the fall of 2020
- Worked on other various bugs, maintenance, and features

Troy, NY

Oct. 2019 - Present

Leadership

RPI Chapter of Upsilon Pi Epsilon, Computer Science Honors Society

Vice President, President

- Oversaw individual committees as well as maintaining the day to day operations of the organization.

Troy, NY

May. 2019 - Present