

## Ryan Zurrin

Boston, MA | [ryan.zurrin001@umb.edu](mailto:ryan.zurrin001@umb.edu) | 413-841-9539 | [Webpage](#) | [LinkedIn](#) | [GitHub](#)

---

### Education

University of Massachusetts Boston, Boston, MA

Dec 2023

*Bachelor of Science: Computer Science, GPA: 3.8*

Berkshire Community College, Pittsfield, MA

Aug 2020

*Associates of Science: Computer Information Systems / Computer Science GPA: 3.7*

- *Certificate in Computer Programming – Technical*

May 2020

### Relevant Coursework

- Programming in Java I & II
- Programming in C
- Programming in C++ I & II
- Introduction to Algorithms
- Blockchain Technology
- Advanced DS and Algorithms
- Intermediate Computing with Algorithms
- Digital Circuits
- Data Structures with Java
- Ethics in Technology
- Calculus, Discrete Math, Linear Algebra
- Web Design
- IT Essentials

### Technical Skills

- **Platforms:** Windows 3.1 - 11, Linux, UNIX, Raspberry Pi, Arduino
- **Languages:** Java (SE8 – SE11), C99 – C11, C++98 – C++20, Python 3+, HTML5, CSS3, JavaScript (ES6+), MATLAB (R2021a+), Bash, Coq
- **Skills:** Object-Oriented Programming, API Design, Algorithm Analysis, Web Design, CMS, Bash Scripting, Learning, Googling, and more.
- **Development Tools:** Notepad, Visual Studio/Code, JetBrains IDE's, Sublime Text, Jupyter Notebook, Anaconda, Terminal/bash, Vim, MultiSIM, NetBeans, Eclipse, Git, GitHub, Working on clusters, SSH.
- **Other Software:** Microsoft Office360 Suite, Google (Sheets, Slides, Docs, Drive, Teachable Machines), Data Robot, GIMP, Autodesk Fusion360, Slack, Teams, Discord, 3DSlicer,

### Project Experience

Berkshire Community College, Pittsfield MA

#### ***Design and build a website***

Sep. 2018 -2021

- Created GitHub account to manage all websites and coding projects.
- Integrated a third-party application for managing comments on my webpage.

#### ***Group Project to design different card games***

Apr. 2021

- Developed a playable card game program using C++, incorporating use of Abstract Data Type's, and Data Structure's.
- Coordinated several games into one menu-based game, allowing a user to select the game to play.
- Worked together using a GitHub repository and maintained close communication with team throughout the project.

#### ***Command line vector and triangle calculator***

Mar. 2020

- Devised 2D, 3D vectors, and triangle classes to allow for vector operations as well as the ability to solve triangles.
- Implemented a client program that allowed users to work with vectors and generate triangle data.

### Work Experience

University of Massachusetts, Machine Psychology Department Researcher

Feb. 2022 – Present

#### ***Machine Psychology Fellow, Data Science researcher***

- Doing breast cancer research using machine learning. Training data which will eventually become the world's largest opensource mammography database named the Oregon-Massachusetts Mammography Database (OMAMA-DB).
- Personally responsible for building our data exploration APIs which allow us to access the remote data in a way that is simple and fast. Built a streamlined frontend ROI annotation tool which gives users a interface for connecting to the remote Dicom data. Also designed and built the API used for running the classification software, making what was a complex process into a very easy and straightforward process.
- Working closely with a team of fellow researchers and a mentor, we are all helping each other to learn as much as possible within our domain of research. We are applying modern machine learning techniques using a dual classifier setup in hopes to eventually achieve better cancer detection models. The end goal is to generate a dataset of 70,000 2D and 3D mammograms, which will be fully annotated and labeled for public use.

Freelance Web Design

Jan. 2020 – Present

***Website Administrator***

- Designed, built, and maintain a website for local business [Berkshire Builders 623](#).
- Produced a website to allow group members to register and purchase tickets for events and concerts. Integrated Eventbrite into site for ticket management and used WordPress as the CMS.
- Constructed tracking and scoring system used in the first annual Great Berkshire Scavenger Hunt.

Norman Rockwell Museum, Stockbridge, MA

Jun. 2021 – Aug. 2021

***Technology Intern***

- Coordinated over 40 computers and mobile devices for digital experiences, including inventory and repairs.
- Wired the museum, beta-testing virtual exhibitions and setting up bug tracking software.
- Set-up and break-down A/V, 6 laptops, wireless microphones, and lightening equipment used for hybrid public/online programs each week.

Berkshire Community College, Pittsfield, MA

Jan. 2018 – Apr. 2020

***IT Assistant | Computer Lab Assistant | STEM mentor | Tutor***

- Set-up campus computers for over 1000 staff and students, kept systems updated, and safe.
- Helped students navigate the school's technology and offered advice and tips.
- Mentored new STEM students and tutored for Digital Circuits and IT Essentials class.

**Awards and Memberships**

- |   |                                     |
|---|-------------------------------------|
| • Dean's List – High Honors Awards        | Spring 2019, Fall 2019, Spring 2021 |
| • Falconer Award – Fine Arts              | Spring 2019                         |
| • CIS Program Award                       | Spring 2021                         |
| • Joseph H. Smith Jr. '45 Award           | Spring 2021                         |
| • Robotics Club                           | Sep. 2018 – Apr. 2020               |
| • Phi Theta Kappa, Communications Officer | Spring, Fall, 2019                  |
| • UMB Computer Science Club               | Fall 2021, Spring 2022              |
| • CSM Undergraduate Research Fellowship   | Fall 2022                           |