

Robert M. Gemma, Jr.

Exeter, RI | (401) 610-0728 | robert_gemma@uri.edu | [linkedin.com/in/robert-gemma-jr/](https://www.linkedin.com/in/robert-gemma-jr/)

EDUCATION

University of Rhode Island, Kingston, RI
B.S. in Computer Science, Minor in Music

May 2021
3.34 GPA

RELEVANT COURSEWORK

Design and Analysis of Algorithms
Machine Learning

Operating Systems & Networks
Computer Organization

Computer Graphics
Object-Orientated Programming

CERTIFICATIONS & TECHNICAL SKILLS

C, C++, Python, C#, Java, JavaScript, Node.js, React.js, MongoDB, Git, GitHub, Max
VS Code, Eclipse, Unity, Windows 10, Linux, MacOS,
MS Word, MS Excel, MS PowerPoint, G Suite, Zoom, WebEx, OBS, NDI, ProPresenter

PROFESSIONAL EXPERIENCE

DisruptWorks, Barrington, RI
Sales Engineer Intern

January 2021 – Present

Seek five public cloud certifications (AWS, AWS AI, Azure, Azure AI, GCP) through guided self-teaching and online learning
Ideate and participate in hackathons with fellow interns – including AI/ML, public cloud, blockchain, and similar projects
Generate several leads with prospective clients through phone, email, and online platforms (e.g., UpWork) on a weekly basis

Computational Sciences REU, Louisiana State University

May 2018 – July 2018

Space Maps for the Solo Performer

Collaborated with Dr. Stephen Beck throughout the SDLC to produce software that controlled SpaceMaps with an analog joystick
Taught myself Max, a Java based visual programming language focused on object-orientated design
Designed and built two, two-dimensional SpaceMap GUIs used to route digital audio signals through a loudspeaker matrix

PORTFOLIO PROJECTS

COVID-19 World Data, Python

December 2020

Implemented a neural network and other machine learning algorithms using sklearn, torch, and other Python frameworks
Met with group members virtually to define goals, divvy work, and produce a final PowerPoint presentation
Found, analyzed, processed, and utilized data to provide insights on a worldly, relevant problem

Cellular Automata, C++

May 2020

Multithreaded an application in two different ways, synchronizing access to shared resource with mutex locks
Assembled and used a makefile to compile and link code for production use
Modified an existing codebase to add additional functionality to a working program

PacMan, C++

April 2020

Recreated a well-known game by closely following documented rules, instructions, and expectations
Used Windows Subsystem for Linux and Visual Studio Code for integrated development on a virtual machine
Worked with OpenGL and glut to create a C++ GUI, building upon handout code

Unity AI Environment, C#

April 2020

Developed a three-dimensional game in Unity with C# scripts written in the Visual Studios IDE
Defined intelligent movement along specified paths with Unity's NavMesh and NavMeshAgent packages
Attached scripts to game objects and managed their interactions, including collision detection and game states

A Universal Virtual Machine, C

November 2019

Emulated a 32-bit machine with eight registers and fourteen opcodes on 64-bit hardware
Identified efficient abstractions and all possible failure modes to handle seg-faults and other pointer exceptions
Debugged difficult code through unit testing, identifying specific failure points and following a well-maintained design document

Asteroids, Java, Eclipse

November 2019

Coded physics-based animations and collision detections using hierarchical collision boxes
Developed a two-dimensional game with splash screens, a scoreboard, levels, lives, and player and enemy health
Auto-generated Java stylized code documentation for classes, methods, and instance variables with javadoc

Natural Language Detection, C, C++

April 2018

Programmed cosine similarity and performed tri-gram frequency analysis as a rudimentary machine learning algorithm
Employed a user defined class, built in another assignment, as part of a larger program
Separated functionality into multiple files to streamline code and abstract away unnecessary minutia

LEADERSHIP EXPERIENCE

Kappa Kappa Psi, University of Rhode Island

September 2017 – Present

Chapter President

September 2019 – Present

- Prepare and lead weekly meetings, workshops, and other events for the organization (~25 members)
- Transition all chapter operations to a virtual format in a matter of weeks as a result of COVID-19
- Set, pursue, and review goals with a five-member executive board on an annual basis and inspire members to achieve them
- Delegate work between eight officers and three committees, ensuring tasks are completed in a timely manner
- Develop and direct the organization's culture in a hyperconscious manner through attentive listening and constructive criticism

Service Chair

September 2018 – May 2019

- Created dozens of templates that automatically tracked service hours and provided similar functionality in G Suite
- Recognized, developed, and executed 15-20 service events per semester aiding the URI Music Department
- Managed the schedules of the organization and its members to ensure high attendance at service events

Marching Band, University of Rhode Island

September 2017 – November 2020

Drum Major

September 2019 – November 2020

- Taught music, drill, and choreography to the band (~100 members) throughout ensemble rehearsals
- Communicated our director's vision, daily goals, and other logistics to eleven section leaders and the rest of the band
- Maintained an elevated level of musicianship and aided others in their musical growth

Alpha Phi Omega, University of Rhode Island

September 2016 – December 2019

Chapter President

September 2018 – May 2019

- Represented the organization (~30 members) to the university and national leadership in an ever-respectable manner
- Understood and employed Robert's Rules of Order during weekly meetings to present and approve ideas/business
- Performed a variety of background tasks needed to maintain standard operations and "put out fires" daily

Vice President of Service

September 2017 – May 2018

- Communicated regularly with community members to organize events and maintain positive relationships
- Aided the chapter president in ensuring the organization fulfilled its mission and vision statements and achieved predefined goals
- Chaired a five-member committee, delegating tasks as needed

VOLUNTEER EXPERIENCE

The Harbor Church, West Kingston, RI

September 2019 – Present

Youth Group Leader

October 2020 – Present

- Facilitated team bonding and building for ~25 middle or high school students through interactive games and activities
- Lead thirty-minute small group discussions for 3-5 students each week to enhance their relational, spiritual, and emotional growth
- Counsel a middle school student one on one in personalized discipleship and fellowship

Production Team Manager

June 2020 – Present

- Learn and deploy new technologies (cameras, OBS, NDI, etc.) in a rapid manner to contend with demand caused by COVID-19
- Migrate the organization's data from legacy software to its newest version (ProPresenter) and train volunteers on new workflows
- Operate and troubleshoot a variety of audio and video equipment, reacting efficiently as a team to mitigate and correct issues

OTHER WORK EXPERIENCE

US Soccer, Cranston, RI

April 2010 – Present

Grassroots Soccer Referee

- Communicate with a referee team, coaches, and players in a high intensity work environment
- Apply The (seventeen) Laws of the Game and league specific rules while maintaining player safety and managing emotions
- Uphold personal fitness levels, both physical and mental, to perform effectively under all conditions

Fine Arts Center, University of Rhode Island

September 2017 - Present

Event Management Staff

September 2017 – May 2020

- Greeted audience members to provide a positive concert experience, including ticket payment and collection
- Managed onstage events through detailed planning, careful collaboration, and thoughtful questioning
- Reacted quickly and efficiently to correct unforeseen issues as a team, often without verbal communication

Rhode Island Veterans Memorial Cemetery, Exeter, RI

Summers of 2015-17, 2019-20

Cemetery Aide

- Trained new employees on landscaping schedules, equipment uses and care, expectations, and similar aspects of the position
- Operated, maintained, and fixed small to medium sized landscaping and industrial equipment (100+ pounds)
- Performed general maintenance: grass mowing, weed-whacking, trimming, weeding, trash collection, etc.

AWARDS & ACHIEVEMENTS

John Phillip Sousa Award, Exeter-West Greenwich Regional High School

June 2016

- Awarded to the top student in a high school band program, recognizing superior musicianship and outstanding dedication