

Eduard Mirzoyan

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EXPERIENCE

Software Engineer, Intern

Feb 2024 - Present

@ RheoSense, Inc. | San Ramon, CA

- Improved various windows-based applications built upon the .NET Framework in C#
- Updated application GUIs built with WinForms or WPF frameworks under a MVVM design pattern
- Averaged 20+ bug fixes/improvement per week guided with an Agile and CI/CD development processes
- Developed tool to establish communication between software and firmware, utilized by 100+ customers
- Collaborated closely with 5+ large biopharma companies such as JNJ, Regeneron and Eli Lil

Game Development Mentor

August 2022 - May 2023

@ UC Berkeley's Game Design and Development Club | Berkeley, CA

- Lead a group of 5 students through the process of creating a game in Unity
- Taught mentees proper debugging procedures and design philosophy
- Conducted numerous code review sessions amongst mentees
- Structured the development process through a 10+ page design document

Lead Game Designer

September 2021 - March 2022

@ Augminted Labs | Milwaukee, WI

- Brainstormed, prototyped and produced 7+ design documents for game mechanics, level design and UI
- Improved user experience and player retention through hosting various focus groups and giving 15+ surveys
- Facilitated weekly meetings amongst other departments such as programming, sound design and marketing
- Increased playtester community by ~20% after implementation of said gameplay mechanics
- Researched 20+ games for insight and inspiration towards new characters and mechanics

PROJECTS

Pixel Physics Simulation Engine

[Demo](#) | C++, OpenGL

- Uses a neighbor-based physics algorithm to determine behavior of individual elements, represented as pixels
- Utilizes OpenGL to take advantage of parallelization when rendering
- Incorporates GLFW to ease the usage of UI and input handling

Platformer Pathfinder Demo

[Codebase](#) | Unity, C#

- Generates scene via Prim's Algorithm and Delaunay Triangulation to ensure randomness
- Finds optimal path to a chosen point, whilst considering gravity, using Dijkstra's algorithm
- Executes generated path using custom movement script

Lightweight Version Control System

[Codebase](#) | Java

- Mimics the functionalities of version control through a combination of Hashmaps and file I/O
- Utilizes the Java standard library to implement Git commands such as init, add, commit, log, branch, checkout functions
- Encodes files using SHA-1 to store files as blobs to ensure a memory-less system

EDUCATION

University of California, Berkeley | B.S in Electrical Engineering & Computer Science | GPA: 3.7

August 2021 - May 2023

- *Coursework:* Operating Systems, Computer Security, Computer Graphics, Artificial Intelligence, Linear Programming, Machine Architecture, Discrete Mathematics, Data Structures, Databases
- *Extracurricular:* Member of the Game Design and Development Club and Student-Lead Course

De Anza College | A.S. in Computer Science | GPA: 4.0

August 2019 - May 2021

- *Coursework:* Algorithms, Abstraction, Program Efficiency, Runtime Analysis, Recursion, Object-Oriented Programming, Advanced C++ Programming, x86 Assembly

TECHNICAL SKILLS

Programming Languages: Python, Java, C#, C++, C, GoLang, SQL, JavaScript/HTML/CSS, Assembly x86, RISC-V

Programming Frameworks: .NET, Windows Presentation Foundation, WinForms, React, Django

Applications: Unity, Git, Agile, Windows, AWS (Amazon Web Services), RESTful API, Jira/YouTrack, TeamCity