# **Eduard Mirzoyan**

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#### **EXPERIENCE**

## Software Engineer, Full-time

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 Lilly

#### **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 though 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