

# Amir Masood Baghi

Uppsala, Sweden

+46 73 971 61 88 | bamirmasoud@gmail.com | github.com/amirbaghi | linkedin.com/in/amir-masoud-baghi

## Education

### Uppsala University

Uppsala, Sweden

#### Master of Science In Computer Science

Fall 2022 - Current

- Started my studies in September 2022
- Currently in the *second* semester of the program
- Have passed all of my courses with *distinction* so far
- Planning to complete the program in September 2024

### Shiraz University

Shiraz, Iran

#### Bachelor's Program In Computer Engineering

Fall 2018 - Fall 2022

- Ranked *662nd* in the National Entrance Exam
- Finished the program in four years with an *18.56/20 CGPA*
- Ranked *2nd* among the total of 81 students in my class

### National Organization for Development of Exceptional Talents Asadpour High School

Bandar Abbas, Iran

#### Mathematics-Physics Diploma

2014 - 2018

Graduated with *19.28/20 CGPA*.

## Work Experience

### Medrick Games

Tehran, Iran (Remote)

#### Unity Game Developer (Internship)

Sept 2021 - Aug 2022

- Got accepted for an internship position in an active publishing and development studio
- Worked as an *Unity game developer* in the hyper-casual game development department
- Additionally participated in game design tasks such as *idea development and refinement*
- My team and I made *four complete casual/hyper-casual mobile games* among other activities

## Academic Experience

### Teaching Assistant, Various Courses

Shiraz, Iran

#### Shiraz University

Fall 2019 - Spring 2022

- Database Design Principles Course (*Spring 2022*)
- Operating Systems Lab Course (*Fall 2021*)
- Computer Arch. Lab Course (*Spring 2021*)
- Principles Of Programming Course (*Fall 2020*)
- Advanced Programming Course (*Spring 2020*)
- Fundamentals Of Computer Programming Course (*Fall 2019*)

## University Projects

### Raytracing and Environment and Shadow Mapping For a Model Viewer

Uppsala, Sweden

Uppsala University - Computer Graphics Course

Spring 2023

Raytracing and environment and shadow mapping were added to an existing GLTF model viewer as the course's project and last assignment. The model viewer provided only a framework, and most of the basics of a renderer were added to it in the previous assignments. Done in C++, OpenGL, and GLSL.

### Carcassonne Map Generator

Uppsala, Sweden

Uppsala University - Combinatorial Optimisation Course

Fall 2022

A *proper* map generator for the game of Carcassonne was implemented in a constraint modeling language, namely MiniZinc. Specific constraints and rules were to be followed in the generation.

### Advanced Reversi AI

Uppsala, Sweden

Uppsala University - Functional Programming I Course

Fall 2022

The game of Reversi (Othello) and an advanced opponent AI were implemented in Haskell. Ranked *3rd* in a tournament against other AIs.

## Alethia, Mock LinkedIn Website

Shiraz University - Databases Design Principles Course

As the course project, a website simulating the features and looks of LinkedIn was developed. Vue.js, Gin (Golang), MySQL, Docker, gRPC, cron, Redis, and Nginx were utilized. All services were dockerized and an effective container orchestration was designed. *Ranked 2nd in the course.*

Shiraz, Iran

Spring 2021

## Various Game Development Mini-Projects

Shiraz University - Computer Games Design and Computer Graphics I Courses

Fall 2020 - Spring 2021

Main concepts in game development/graphics, such as skeletal animation (inverse kinematics), game engine development and design patterns, game physics, the render engine, and game metric analysis were implemented in these projects. All written in C++ using OpenGL/GLFW/GLUT.

### 3d Eight Queens

Shiraz University - Computer Graphics I Course

Shiraz, Iran

Fall 2020

As the course project, a program simulating the eight queens problem in 3D graphics was written in C++ using only OpenGL. Advanced lighting and surface materials were implemented and used to improve the graphics.

### Modo, Bus Transportation App

I.D.E.A. Footsteps Contest

Shiraz, Iran

Summer 2020

For the I.D.E.A. Footsteps Contest, we were tasked with implementing a tracking system for the university's bus lines, including a mobile app to provide users with info on the scheduling. Developed with Flutter. *Ranked 1st in the contest.*

### MIPS-Based CPU

Shiraz University - Computer Architecture and Computer Architecture Lab Courses

Spring 2020 - Fall 2020

A pipelined CPU based on MIPS was implemented in Python (*for Computer Arch. Course, ranked 1st*) and in Verilog (*for Computer Arch. Lab Course*).

### Teatro, Game Console In C

Shiraz University - Principles of Programming Course

Shiraz, Iran

Spring 2019

As the course project, our team implemented a game console to be able to render certain 2D games on PC, written in C. *Ranked 2nd in the course.*

## Awards, Honors, And Certificates

2022	<b>Dean's List</b> , Shiraz University	Shiraz, Iran
2022	<b>Ranked Second In My Class</b> , Shiraz University	Shiraz, Iran
2021	<b>TOEFL iBT (120/120)</b> , ETS	Tehran, Iran
2020	<b>Ranked First In The First Technical Footsteps Competition</b> , I.D.E.A Association	Shiraz, Iran
2019	<b>Completion Of A Full Program In English Language</b> , Iran Language Institute	Shiraz, Iran

## Skills

<b>Programming Languages</b>	Python, Java, C/C++, C#, JavaScript, Golang, Dart, Verilog, HTML/CSS, x86/MIPS Assembly Language, MiniZinc, Haskell, and GLSL
<b>Game Engines</b>	Unity
<b>Graphics and GPU Libraries</b>	OpenGL, GLUT, GLFW, GLEW, SDL, and CUDA
<b>Web/Application Frameworks</b>	Spring, Django REST, Gin, Flutter, Vue, Vuetify, Qt, Bootstrap, Flask
<b>Mathematical and ML Tools</b>	MATLAB, Maple, jupyter, NumPy, pandas, scikit-learn, PyTorch, and Ray Tune
<b>Project Management</b>	Agile Software Development (SCRUM), Git Version Control Systems, Trello, JIRA, and Slack
<b>Miscellaneous</b>	TeX, UML Diagrams, Adobe XD, Docker, and SQL
<b>Soft Skills</b>	Communication, Team-work, Team Management, and Being Resilient and Diligent

## Interests

- Programming
- Games and their development
- Art, esp. music and film
- Artificial Intelligence
- Philosophy
- Storytelling

## Languages

<b>English</b>	Full Proficiency
<b>Farsi</b>	Native Proficiency
<b>Swedish</b>	Intermediate Proficiency

References available upon request.