# SHAYAN DAIJAVAD

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### **EDUCATION**

California Polytechnic State University – San Luis Obispo

# **Bachelor of Science Degree in Computer Science**

GPA: 3.835

Systems Programming,

Sept 2021 – June 2025

**Relevant Coursework:** Data Structures, Object Oriented Programming, Systems Programming, Computer Architecture, Design and Analysis of Algorithms, Intro to Software Engineering, Intro to Computer Security, Programming Languages, Theory of Computation, Introduction to Databases, Interactive Entertainment Engineering, Compiler Construction, Operating Systems, Artificial Intelligence, Research Senior Project in Migration Networks

#### **SKILLS**

**Programming:** Java, Python, C, ARM v8 Assembly, JavaScript, HTML, CSS, Racket, MySQL, C#, C++ **Software Tools:** Unix, git, Bash, Docker, Vue.js, TypeORM, Unity, Godot, NetworkX, LLVM **Spoken Languages:** Intermediate Spanish, Basic Farsi

#### **EXPERIENCE**

## Algorithms Student Researcher, Cal Poly SLO SURP

June 2024-Sept 2024

 Working alongside Professor Daniel Frishberg on a project to find empirical support for Monte Carlo Markov Chain mixing time algorithmic conjectures. My role involves writing C++ code to randomly sample independent sets in trees.

## Migration Network Student Researcher, Cal Poly SLO

Jan 2024-Sept 2024

• Constructed a global migration network using NetworkX and UN data. Investigated the effects of a country's democratic index on where people migrate to and from.

## **Computer Science Tutor, Cal Poly SLO**

Oct 2023-Present

• Tutoring other students in Cal Poly's CSC 101, 202, 203, 225, and 357 courses at the CSSE Tutoring Center.

### PROGRAMMING PROJECTS

# **ARM Compiler for the Mini Language, Compiler Construction Partner Project**

Languages and Tools Utilized: Java, ARMv8, LLVM

- Built a functional compiler in Java for a C-like language called Mini.
- Implemented static semantic analysis, LLVM intermediate representation generation, and ARMv8 generation.

## Sun Bird, Interactive Entertainment Engineering Group Project

https://emumangames.itch.io/sun-bird

Languages and Tools Utilized: C#, Unity

- Developed a vertical scrolling shoot 'em up video game with 3 other people.
- Worked on the background procedural generation functionality, all sprites, all animations, and health bar functionality.

## Social Recipe Website, Intro to Software Engineering Group Project

Languages and Tools Utilized: Vue.js, Node.js, Axios, Express.js, TypeORM

- Developed a social web app for user account creation, recipe posting with images, event creation by zipcode, account following, recipe browsing, and review posting.
- Solely responsible for recipe and review features (backend and frontend), individual recipe view, and account functionality. Collaborated with my team on other aspects.