

# Matthew Gies (he/him)

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## WORK EXPERIENCE

### Amazon, Inc.

Seattle, WA

*Software Development Engineer, Telephone Networking Team*

March 2024 – Present

- Recognized team frustration with data being disparately stored across internal tooling and AWS accounts. Designed and implemented a single relational database with API access to centralize team's data
- Identified team frustration around sifting through old, redundant documentation. Researched current documentation and surveyed team members. Proposed and built consensus to implement new doc-writing and auditing processes to keep team information accessible and up to date
- Productionized a system to patch a security vulnerability on 35,000+ phones, including addressing errors with existing implementation, built a pipeline for CI/CD maintenance. Deployed this system at scale across multiple networks with varying topology and security requirements. Improved success rate from 70% to 99.8%
- Maintained telephony infrastructure for 11 million+ calls per month, 69,000+ internal users, and 50 API TPS
- Facilitated migration to new telephony platform by deploying internal APIs for management and collaborating with vendor

### Amazon Web Services

Seattle, WA

*Software Development Engineer Intern, Telephone Networking Team*

June 2022 – September 2022

- Created a self-service tool to automate setup of Auto Attendant phone hotlines. In use by 1100 sites as of February 2025
- Designed low- and high-fidelity UI mockups in Figma to understand customer needs and guide frontend engineers
- Managed CI/CD infrastructure with CDK, unit testing, and integration testing utilizing API Gateway-Lambda paradigm

## PROJECTS

### Realistic, Real-Time Water Shader ([mattgies.github.io/wet-wet-water-shader/](https://mattgies.github.io/wet-wet-water-shader/))

- Freeform final project for computer graphics course. Inspired by my interest in the connection between computers, math, and visual arts, devised and implemented a water shader in WebGL that uses calculus to calculate light refraction from the water's surface in real time
- Fostered user interactivity via a rotatable camera and sliders to adjust various shader parameters

### Video Game: 404: Producer Not Found ([saffrona.itch.io/404-producer-not-found](https://saffrona.itch.io/404-producer-not-found))

- A 3-D detective game created as part of VGDC project teams over the course of an academic quarter
- Produced 3D meshes and textures for 20 props using Blender, Procreate, and Unreal Engine 5
- Designed a computer navigation UI using Figma and collaborated on UE5 Blueprints to make it functional in-game

## EDUCATION

### University of California, Irvine

*Bachelor of Science, Computer Science (GPA: 4.00)*

September 2019 – June 2023

- Activities: Video Game Development Club, Renegade & INSA & SQ1 Dance Teams, Design at UCI, Free Clinic Project

## LEADERSHIP EXPERIENCE

### Video Game Development Club

*Secretary, Art Director*

March 2021 – March 2023

- Identified misalignment between needs of new game developers and existing curriculum for “Scaffold” projects intended to teach introductory skills. Founded a committee to revise the curriculum, and saw better engagement within the club
- Facilitated quarterly game projects for 100+ members, including interviewing potential project leads, organizing art commission requests, leading prototyping sessions, and responding to members' questions outside of meetings
- Planned and executed 15 game jams and social events per year
- Planned workshop schedules each quarter, prepared slide decks, and presented every week to 100+ club members

### ICS 51 Tutor

September 2022 – January 2023

- Taught students low-level computer organization and MIPS programming during twice-weekly tutoring sessions
- Collaborated with the lead professor to host additional review sessions for exams

## SKILLS & INTERESTS

Languages: Python, TypeScript, C++, MIPS, WebGL, MEL

Other Skills: AWS, VOIP Telephony, Networking, REST APIs, Technical Writing, Spanish (Conversational), Figma, Blender

Interests: Narrative Video Games, Pottery, Amapiano Dance, Linguistics, Baking, YouTube Video Essays