Sean Tang

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EDUCATION

University of British Columbia Sep 2020 - May 2025

Third Year B.S. Computer Science | GPA 4.1 / 4.33

Relevant courses: Data Structures & Algorithms, Software Engineering, Relational Databases, Networking, OS & Architecture, Machine Learning

EXPERIENCE

Sony

May 2023 - Jan 2024

Software Engineer Intern - Infrastructure Applications ***Vancouver, BC***

- Improved **30+** movie editing **Python** plugins used by **500+** animators, expanding artist toolsets and pipeline options through iterative user suggestion, as a developer on a **20+** person infrastructure applications team
- Collaborated with interns in deploying, from scratch, a **fullstack** web & desktop app for movie documentation, improving consistency for **5+** movies in concurrent production, utilizing **Docker, Electron, Angular, Typescript,** and a **Flask** backend API
- Optimized performance of mediaplayer software through refactoring legacy **Python/PyQt** codebase to **Python 3**, leveraging **Bash** and **Git/SVN** in a **Linux** environment, reducing user latency and startup times from **minutes to seconds**
- Reduced downtime of messaging application by **90%**, through restructuring of **STOMP API** and **ActiveMQ**, as well as adding user authentication with **LDAP**, enhancing security across Sony Pictures California, Vancouver, and Montreal

Relic

Sep 2022 - Apr 2023

Software Developer Intern - Game and Tools Programming ***Vancouver, BC***

- Contributed up to **50** gameplay features and bug fixes with **C++** on the live operations team, through **Perforce Version Control** for the launch of Company of Heroes 3, serving a peak load of **36,000 players**
- Spearheaded end-to-end development of pipeline tools, specifically streamlining the creation of asset metadata, allowing cosmetics designer workflow to go from **days to hours**, implemented in **C#/.NET** and **XML** in the **Essence Engine**
- Redesigned automated screenshot tool for in game assets, leveraging asynchronous programming in **Lua** to capture in-game images for UI and promotional usage, effectively removing the need for manual artist capture by **100%**

UBC Game Development

Sep 2020 - Apr 2022

Art & Programming Lead ***Vancouver, BC***

- Led a team of up to **10** artists and programmers, overseeing art direction, technical design, and QA for the mobile game SpellRise through **Unity** and **C#**, winning the Best Graphics Award at the 2021 Year End Showcase
- Introduced asset creation pipeline, using **Git**, **Photoshop**, and **Asana**, delegating tasks to fellow project members, streamlining production by **50%**
- Conducted weekly meetings, leading the art team in an Agile development process, and communicating marketing to meet timeline expectations

PROJECTS

Microsoft AI for Accessibility Group Competition - AmplifAI LinkedIn GitHub

Python, Azure Speech Service, Azure Machine Learning, Azure Cloud Computing

- Won **2nd** place in the Microsoft AI For Accessibility Competition, hosted at Microsoft Toronto, presented in front of a live audience
- Trained machine learning speech model to interpret dysarthric and speech impaired individuals, transcribing their words clearly as subtitles or text to speech, developed on a team of 3 developers and Microsoft mentor
- Delivered with Python and trained with Azure Machine Learning & Cognitive Speech Service models, utilizing Azure Cloud

Raycasting Computer Graphics Engine YouTube GitHub

C++, GNU G++, Windows API

- Developed a CLI application using trigonometry and linear algebra, optimized for lower latency than average raycasting algorithms
- Shows users a maze generated with 3-dimensional computer graphics within the command prompt console
- Implemented maze generation (Prim's Algorithm) and raycasting using digital differential analysis (DDA algorithm)

No Ingredients Left Behind - Hack the North 2022 Hackathon Devpost GitHub

Python, Typescript, SCSS, HTML

- Trained an NLP machine learning model with Co:here to generate realistic recipes with sparse ingredients for reducing food waste
- Pruned public data of over **10,000+** recipes to create readable dataset for model training
- Utilized FastAPI, a Python REST API, backend to interact with NLP model and React frontend to create web app

SKILLS

Languages: C++, C#, Python, Golang, Lua, Java, Typescript, SQL, Bash

Software and Technologies: Git, Perforce, .NET, Linux, Azure Cloud Computing Services, Node.js, Electron, Docker, MySql, Flask, Oracle, GDB, Jenkins, Three.js, OpenGL