## **Gabriel Mukobi**

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## **Summary:**

Energetic digital creator and undergrad student who is passionate about games, virtual reality, and entertainment. Eager to join a fast-moving company as an intern to build the future of real-time interactive experiences in a collaborative and high-responsibility environment. Previous experience in game development, VR, and software engineering in both small-team and corporate environments.



Research Programmer Intern, Epic Games - June 2020-September 2020 - epicgames.com

Created deep reinforcement learning sample projects in Epic Games' Unreal Engine 4 and guided the development of an engine plugin to facilitate the use of UE4 for artificial intelligence and machine learning applications. Skills: Unreal Engine 4, C++, research, reinforcement learning, Python, PyTorch.

VRITS Programmer, Virtual Human Interaction Lab - Sept 2019-September 2020 - vhil.stanford.edu

Built VR experiences as a Virtual Reality Intensive Training Seminar (VRITS) programmer at Stanford University's Virtual Human Interaction Lab (VHIL) that are actively used in research, demos, and tours. Skills: Unity, C#, UE4, C++, Blender, virtual reality, OpenVR, Oculus.

Google Engineering Practicum Intern, Google Cloud Platform - June 2019-Sept 2019 - github.com/knative-portability

Developed several full-stack <u>open-source applications</u> as proof of portability for <u>Knative</u>, an open-source platform for serverless containerized workloads. Skills: Python, Flask, MongoDB, CI/CD, testing, OAuth 2.0, Node.js, Express.js, TypeScript, PostgreSQL.

Freelance Web and Software Developer, Sticks and Stones Software - Sept 2017-June 2019 - software.qabrielmukobi.com

Performed freelance web, mobile, and desktop development through my company, Sticks and Stones Software. Skills: software engineering, product delivery, Node.js, React, Vue.js, PHP, HTML5, CSS, JavaScript, web APIs, SQL and NoSQL database management, VCS.

Software Engineering Intern, Portland State University, Ralf Widenhorn Physics Lab - June 2017-Mar 2018 - github.com/mukobi/pozyx-clone

Developed software for a high accuracy positioning device, Pozyx, and implemented it as a physics education tool. Skills: Python, Java, GUIs.

## Selected Projects:

Rogue Starfighter VR - Personal Project - February 2020-March 2020 - gameplay video - github.com/mukobi/Rogue-Starfighter-VR

Rogue Starfighter VR is an immersive virtual reality Star Wars X-wing flight simulator fan-game. In it, the player experiences the full scale and power of the space combat from a galaxy far, far, away behind the controls of a fully-interactive T-65B X-wing starfighter.

Knative Portability - Google Cloud Platform - June 2019-Sept 2019 - github.com/knative-portability

A collection of full-stack open-source web applications built as a proof of portability for Knative, an open-source platform for serverless containerized workloads. Notable applications: Kubercade (a social virtual arcade) and Large Events (an event organizer).

PieWallet - Freelance - July 2018-May 2019 - github.com/mukobi/PieWallet

PieWallet is a hybrid cryptocurrency wallet and social media web app built in PHP and JavaScript as a freelance project (imagine crypto+Venmo). Involved social networks, API design and public API calls, and blockchain and cryptocurrency.

## Skills:

**Game Development** - Unreal Engine, Unity, gameplay programming, Blender, virtual reality, 3D modelling, computer graphics, DirectX, OpenGL, technical art. Languages: C++, C#, Python. - software.gabrielmukobi.com/games

**Software Engineering** - design principles, agile development, product management, documentation, unit testing, bug reporting, code review, data structures, algorithms, CI/CD, debugging, IDEs, command line, Linux, Git, Perforce, GitHub, GitLab. Languages: C++, C#, C, Python, Java. - software.gabrielmukobi.com

**Artificial Intelligence** - research, machine learning, deep learning, reinforcement learning, Bayesian networks, logic, PyTorch, TensorFlow, Keras. Languages: Python.

**Web Development** - full-stack, HTML5, responsive design, API design, NoSQL and SQL databases, Docker, Webpack, serverless, Google Cloud. Languages: JavaScript, Node.js, Python, PHP. - <u>software.gabrielmukobi.com/web</u>



Stanford University - Bachelors 2022 (current third-year student) - B.S. Computer Science - Cumulative GPA: 3.97

Coursework in: Computer Graphics, AI, HCI, Computer Systems, Algorithms, Data Structures, Probability, Linear Algebra.

Camas High School - 2014-2018, Math, Science, and Technology Magnet Program - Cumulative GPA: 4.0



Photography, 3D art, Filmmaking, music performance, video and tabletop gaming, and fantasy or science-fiction.