

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 digital experiences while working in a collaborative and high-responsibility environment. Experienced in game, VR, and software development in both small-team and corporate environments.



Experience:

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

Created reinforcement learning public demos 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.

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 [open-source applications](#) as proof of portability for [Knative](#), an open-source platform for serverless containerized workloads. Learned software engineering skills and tested Google's Knative implementation, Cloud Run. Skills: Python, Flask, MongoDB, CI/CD, unit/coverage/integration testing, OAuth 2.0, Node.js, Express.js, TypeScript, PostgreSQL, Mocha.js, Chai.js.

Took internal classes on machine learning with TensorFlow and programming in Golang.

Freelance Web and Software Developer, Sticks and Stones Software - Sept 2017-June 2019 - software.gabrielmukobi.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). Required knowledge in [social networks](#), [API design and public API calls](#), and [blockchain and cryptocurrency](#).



Skills:

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

Software engineering - very experienced - S.O.L.I.D. design principles, agile development, documentation, unit testing, code review, integration testing, bug reporting, CI/CD, debugging, IDEs, command line, Linux. Languages: C++, C#, C, Python, Java. - software.gabrielmukobi.com

Machine learning - experienced - deep neural networks, regression, classification, clustering, support vector machines, Markov decision processes, TensorFlow, Keras. Languages: Python, C++.

Web development - very experienced - full-stack, HTML5, RESTful API design, NoSQL and SQL databases, responsive design, Webpack, Babel, serverless, Docker, Kubernetes, Google Cloud. Languages: JavaScript, Node.js, Python, PHP. - software.gabrielmukobi.com/web

Version control systems - very experienced - Git, Perforce, [GitHub](#), [GitLab](#), open-source contribution.



Education:

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

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

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



Interests:

[Photography](#), [3D art](#), [Filmmaking](#), [music performance](#), video and tabletop gaming, and fantasy or science-fiction.