Gabriel Mukobi

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Summary:

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

Experience:

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

Created virtual worlds as a Virtual Reality Intensive Training Seminar (VRITS) programmer at Stanford University's Virtual Human Interaction Lab (VHIL). Built VR experiences that are actively used in research, studies, demos, and tours at VHIL to understand the dynamics and implications of interactions among people in immersive virtual reality simulations and other forms of human digital representations in media, communication systems, and games. Skills: Unity, Blender, virtual reality, OpenVR, Oculus, C#.

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, Travis-CI, unittest, Coveralls, OAuth 2.0, Node.js, Express.js, TypeScript, PostgreSQL, Circle-CI, Mocha.js, Chai.js, Codecov.

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

Freelance Web and Software Developer, Sticks and Stones Software - Sept 2017-Present - 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-Aug 2017 - github.com/mukobi/pozyx-clone

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

Selected Projects:

Rogue Starfighter VR - Personal Project - February 2020-Present - 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 an immersive and fully-interactive T-65B X-wing starfighter.

Main goals: compelling hand-controlled cockpit interactions; highly detailed models, VFX, shaders, and sound design; and lots of hands-on learning.

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 virtual arcade with social interactions) and Large Events (a social 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 (think crypto+Venmo). Required knowledge in social networks, API design and public API calls, and blockchain and cryptocurrency.

Skills:

Programming - software.gabrielmukobi.com

Game Development - very experienced - Unity3D, Blender, computer graphics, virtual reality, DirectX, OpenGL, asset creation, game scripting, shaders. Languages: C#, C++.

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

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, Unix. Languages: C#, C++, C, Python, Java.

Web development - very experienced - full-stack development, HTML5, RESTful API design, MongoDB, SQL databases, responsive design, Webpack, Babel, serverless, Knative, Docker, Kubernetes, Google Cloud Platform. Languages: JavaScript, Node.js, Python, PHP.

Version control systems - very experienced - git, GitHub, GitLab, open-source contribution.

Education:

Stanford University - Bachelors 2022 (current second-year student) - B.S. Computer Science - Cumulative GPA: 3.969

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:

Filmmaking, photography, music performance (funk, jazz, rock), video and tabletop gaming, 3D art, and science-fiction.