Gabriel Mukobi

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Summary:

Programmer, researcher, and student passionate about games, virtual reality, and entertainment who is eager to build the future of real-time interactive digital experiences. Previous experience in game development, VR, research, and software engineering in both small-team and corporate environments.

Experience:

Gameplay Engineering Intern, Riot Games - June 2021-Sept 2021 - Remote - riotgames.com

Designed and implemented core features as a Software Engineering Intern on the gameplay team of Project L, Riot Games' unreleased fighting game set in the League of Legends universe.

Research Programmer Intern and Tools Programmer Intern, Epic Games - June 2020-Jan 2021 - Remote - unrealengine.com

Created deep reinforcement learning samples in Unreal Engine and a plugin to facilitate the use ML in UE4. Engineered tools to predict LED wall moiré and other issues to improve Unreal Engine virtual production shoots. Skills: Unreal Engine 4, C++, Python.

VRITS Programmer, Virtual Human Interaction Lab - Sept 2019-Sept 2020 - Stanford, CA - 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++, virtual reality, Blender.

Google Engineering Practicum Intern, Google Cloud Platform - June 2019-Sept 2019 - Seattle, WA - 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. Skills: Python, Flask, MongoDB, CI/CD, testing, OAuth 2.0, Node.js, Express.js, TypeScript, PostgreSQL.

Selected Projects:

Rogue Starfighter VR - Personal Project - Feb 2020-Mar 2020 - gameplay video - github.com/mukobi/Rogue-Starfighter-VR

Rogue Starfighter VR is a 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.

Virtual Becomes Reality - Virtual Human Interaction Lab - Dec 2019-June 2021 - Steam page

Virtual Becomes Reality combines VHIL's lab demos and almost 2 decades of research into a self-contained VR experience. As one of more than a dozen people involved with the project, I developed a multitude of gameplay features and earned Technical Lead and Senior Programmer credits. Premiered 2020 at the Cannes XR festival and Tribeca Film Festival, released 2021 on Steam.

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 (social virtual arcade) and Large Events (event organizer).

Skills:

Game Development - software.gabrielmukobi.com/games

Unreal Engine, Unity, gameplay programming, tools programming, virtual reality, Blender, 3D modelling, computer graphics, technical art. Languages: C++, C#, Python.

Software Engineering- software.gabrielmukobi.com

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.

Artificial Intelligence

Machine learning, deep learning, reinforcement learning, research, logic, PyTorch, TensorFlow, Keras. Languages: Python.

Web Development - software.gabrielmukobi.com/web

Full-stack, web design, databases. Languages: JavaScript, Node.js, Python.

Education:

Stanford University - B.S. Computer Science - Sept 2018-June 2022 (current third-year student) - Cumulative GPA: 3.97

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

Interests:

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