Gabriel Mukobi

Web: gabrielmukobi.com | Email: gmukobi@stanford.edu | Mobile: 360.525.7299 | GitHub: mukobi | Unabridged CV: goo.gl/UaaKM0

Summary:

Engineer, researcher, creator, and student passionate about empirical research and field building that reduces risks from advanced AI. Experienced in machine learning, software engineering, game dev, and research in both small-team and large-company environments.

Experience:

Gameplay Engineering Intern, Respawn Entertainment - June 2022-Sept 2022 - Remote - ea.com

Engineered core gameplay and AI features as a Software Engineering Intern on the gameplay team of Respawn's unreleased Star Wars first-person shooter title. Skills: Unreal Engine 5, C++.

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. Skills: Unreal Engine 4, C++.

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 of 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.

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:

MLAB Transformers From Scratch - Personal Project - Aug 2022-Sept 2022 - GitHub Repo

A documented and unit-tested repo to learn how to build transformer neural network models like BERT and GPT-2 from scratch, starting from the transformer days curriculum from Redwood Research's Machine Learning for Alignment Bootcamp (MLAB).

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 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 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:

Artificial Intelligence - software.gabrielmukobi.com/ai

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

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.

Web Development - software.gabrielmukobi.com/web

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

Education:

Stanford University - B.S. Computer Science - Sept 2018-June 2023 (current final-year student) - Cumulative GPA: 4.02

Coursework in AI, Computer Graphics, Computer Systems, Theory, and Algorithms. Stanford AI Alignment and Stanford Effective Altruism Co-President, past leadership in Stanford XR, Stanford AltPro, and People for Animal Welfare.

Interests:

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