## Gabriel Mukobi

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## **Summary:**

Researcher, engineer, and leader passionate about research, policy, and strategy to secure a beneficial future with advanced Al systems. Experienced in machine learning research, software engineering, and leadership in both small-team and large-company environments.



Member of Technical Staff, U.S. Center for Al Standards and Innovation - July 2024-Present - San Francisco, CA - nist.gov/aisi

Protecting U.S. national security, public safety, and economic competitiveness from frontier Al-enabled threats.

Technology and Security Policy Fellow, RAND Corporation - Apr 2024-July 2024 - Washington, DC - rand.org

Informing and improving Al governance decision-making and policy through research.

Technical Al Safety Research Fellow, Existential Risk Alliance - Jul 2023-Sep 2023 - Cambridge, UK - erafellowship.org

Benchmarked cooperative AI capabilities with language models in multi-agent environments; also a Krueger Al Safety Lab Intern.

Gameplay Engineering Intern, Respawn Entertainment - Jun 2022-Sep 2022 - Remote - ea.com

Engineered core gameplay and AI features on Respawn's unreleased Star Wars bounty hunter first-person shooter.

Gameplay Engineering Intern, Riot Games - Jun 2021-Sep 2021 - Remote - riotgames.com

Designed and implemented core features as a Software Engineering Intern on the gameplay team of 2XKO (prev. Project L).

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

Created deep reinforcement learning samples, a machine learning plugin, and virtual production tools in Unreal Engine.

Google Engineering Practicum Intern, Google Cloud Platform - Jun 2019-Sep 2019 - Seattle, WA - github.com/knative-portability

Developed full-stack open-source applications as proof of portability for Knative, a platform for serverless containerized workloads.

## **Selected Projects:**

Escalation Risks from Language Models in Military and Diplomatic Decision-Making - Oct 2023-Jan 2024 - Paper, GitHub

Co-first author. Evaluating the risks from autonomous language model decision-makers in escalating international conflicts. Accepted to ACM FAccT 2024, MASEC NeurIPS 2023 workshop (spotlight).

Welfare Diplomacy: Benchmarking Language Model Cooperation - Jun 2023-Sep 2023 - Paper, GitHub

First author. Multi-agent LLM evaluations in a novel general-sum variant of Diplomacy that better incentivizes and measures cooperation. Accepted to the SoLaR NeurIPS 2023 workshop, in review at ICML 2024.

SuperHF: Supervised Iterative Learning from Human Feedback - Jan 2023-Sep 2023 - Paper, GitHub

First author. Alternative to RLHF using supervised learning instead of RL. Accepted to the SoLaR NeurIPS 2023 workshop.

Societal Adaptation to Advanced AI - Jan 2024-May 2024 - Paper, Thread

Co-first author. How society might adapt to lessen possible future risks from advanced Al systems.



Artificial Intelligence - software.gabrielmukobi.com/ai

Al safety, NLP, Al governance, evaluations, ML, DL, foundation models, research mentorship. Languages: Python.

Software Engineering- software.qabrielmukobi.com

Product management, documentation, testing, bug reporting, code review, CS, VCS, GitHub, GitLab. Languages: Python, C++, C#.

Web Development - software.gabrielmukobi.com/web

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

Game Development - software.gabrielmukobi.com/games

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



University of California, Berkeley - Ph.D. Computer Science - Aug 2024-Present

Ph.D. student researching technical Al governance. Advised by <u>Jacob Steinhardt</u> and <u>Dawn Song</u>.

Stanford University - M.S. Computer Science - Sep 2023-Mar 2024, B.S. Computer Science - Sep 2018-Dec 2023 - Cum GPA: 4.01

Stanford Al Alignment Founder and President 2022-24. Coursework in Al/ML, Computer Systems, Graphics, Algorithms, and Theory.