

NIKHIL SINGLA

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SUMMARY

Software Engineer specializing in full-stack and AI/ML development, certified by Microsoft and Google. Proficient in Python (PyTorch, NumPy, Matplotlib) for building scalable, modular systems. Strong communicator and team player, skilled at translating complex technical concepts into optimized, high-performance solutions

EDUCATION

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| <b>University of Southern California (USC)</b><br>Master of Science in Computer Science <ul style="list-style-type: none"><li>Specializing in Artificial Intelligence</li></ul>           | <u>Jun 2024 - May 2026</u><br>Los Angeles, CA |
| <b>University of Kansas (KU)</b><br>Bachelor of Science in Computer Science <ul style="list-style-type: none"><li>Minor: Mathematics   Certificate: Cybersecurity   Dean’s List</li></ul> | <u>Aug 2020 - May 2024</u><br>Lawrence, KS    |

TECHNICAL WORK

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| <b>NLP Developer</b><br>STELLA: Multilingual AI Translation Engine <ul style="list-style-type: none"><li>Compressed multilingual model using LoRA and pruning to deploy on edge devices with 75% lower footprint.</li><li>Optimized training and inference workflows to reduce deployment costs and support cloud and edge environments.</li><li>Conducted inference testing, and output traceability to validate model behavior prior to release.</li></ul>                                                                                                                                                                                                  | <u>Jan 2025 - May 2025</u><br>PyTorch, ONNX, Quantization |
| <b>ML Engineer</b><br>Little-Go AI Agent <ul style="list-style-type: none"><li>Built a 5x5 Go-playing agent using Minimax + Alpha-Beta pruning; 95% win rate across 120+ AI matchups.</li><li>Applied structured troubleshooting and data-backed validation to identify causes of runtime performance dips.</li><li>Developed custom logging and internal metrics to trace incorrect predictions, mimicking failure tracing workflows.</li></ul>                                                                                                                                                                                                              | <u>Aug 2024 - Oct 2024</u><br>Python, HTML/JS/CSS         |
| <b>Backend Developer</b><br>Mapalyze-Parser <ul style="list-style-type: none"><li>Translated product requirements into technical code for an end-to-end pipeline, processing visual floor plan inputs into structured JSON, while serving as the link between application needs and the development team limitations.</li><li>Implemented browser automation (Selenium) to replicate human workflows, improving production speed by 3x</li><li>Defined and executed QA test cases for edge detection on noisy datasets; documented failure modes, and resolutions, to support Agile sprint reviews and maintain output quality on a tight schedule.</li></ul> | <u>Jan 2024 - May 2024</u><br>Flask, OpenCV, Selenium     |

PROFESSIONAL EXPERIENCE

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| <b>Python Teaching Assistant</b><br>CS@SC Summer Camps <ul style="list-style-type: none"><li>Facilitated hands-on technical workshops for middle and high school students at the USC Viterbi K-12 STEM Center, consistently translating complex topics for non-technical audiences and demonstrated adaptability by adjusting instruction in real time</li><li>Guided students through interactive lessons on programming, robotics, and game development using Python and Scratch.</li></ul>                    | <u>May 2025 - Aug 2025</u><br>Los Angeles, CA |
| <b>Resident Assistant</b><br>University of Kansas, Student Housing <ul style="list-style-type: none"><li>Served as the primary point of contact for 1500+ residents over 3 years, managing real-time issue resolution and setting clear expectations with stakeholders (residents/managers) at every level.</li><li>Coordinated responses across residents, housing staff, and university administration, building the cross-functional communication skills central to client-facing consulting work.</li></ul> | <u>May 2021 - May 2024</u><br>Lawrence, KS    |

INTERESTS & GROWTH AREAS

Currently working toward an AWS Cloud certification while deepening my experience with AI tooling, including prompt engineering and optimization. Expanding my knowledge of containerization and infrastructure, including Docker, Kubernetes, and virtualization.