ALEXANDER KRISTOFFERSEN

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EDUCATION

University of California, Berkeley

M.S. in Electrical Engineering & Computer Science — August 2022 - May 2023
- Emphasis on computer vision and graphics, advised by Prof. Joseph Gonzalez
- Technical Report: LoopNeRF: Exploring Temporal Compression for 3D Video Textures

B.S. in Electrical Engineering & Computer Science, **GPA:** 3.93 — August 2018 - May 2022
- Eta Kappa Nu (EECS honors society) officer, Accel Scholar

Relevant Coursework:
Signals and Systems, Operating Systems, Optimization Models, Probability, Comp. Photography and Computer Vision, Machine Learning, Parallel Computing, Computer Graphics, Deep Neural Networks

EXPERIENCE

Midjourney — June 2025 - Present
Senior Software Engineer - Hardware Team — *San Francisco, CA*
- Leading software architecture and implementation on a project within Midjourney's hardware team.
- Scoping compute, distributed system architecture, and code optimization for maximizing bandwidth.

Skydio — July 2023 - May 2025
Autonomy Engineer - Computer Vision (3D Vision) — *San Mateo, CA*
- Shipped Skydio's Onboard modeling product on the X10 drone, building high-quality photogrammetry models under strict on-device compute limitations. (Python, C/C++)
- Led efforts researching 3D Gaussian splatting as an addition to the photogrammetry pipeline.
- Aided in the development and characterization of RTK-GPS for high-accuracy mapping.

Google — May 2022 - August 2022
Software Engineer Intern — *Sunnyvale, CA*
- Within core data team, worked to increase reliability of Semantic Understanding pipeline, who's internal customers span all major products within Google.
- Increased prediction accuracy of incoming requests by 80% for reliable loadbalancing/loadshedding with minimal additional overhead. (Python, C/C++)

Butterfly Network Inc. — May 2021 - August 2021
Research Scientist - Machine Learning Intern — *New York, NY*
- Part of Butterfly's Deep Learning Team, developing models to run on a handheld ultrasound device at a fraction of the cost of standard machines. (Python, Tensorflow, C/C++, Swift)
- Developed IMU sensor fusion infrastructure and models to aid in education and visual accuracy.
- Bootstrapped from low-level driver code, requiring design up through S3 backend and tensorflow models.

PROJECTS

Nerfstudio: A Collaboration Friendly Studio for NeRFs — May 2022 - Present
- Developer for Nerfstudio, an open-source API for creating, training, and viewing NeRFs and 3DGSs.
- Built multiple user-facing features, including camera pose optimization, Google Colab support, equirectangular image support, and extensive documentation for a project with almost 10,000 GitHub stars.

TECHNICAL STRENGTHS

Languages/Skills: Python, C++, C, Java, SQL, Assembly (RISC-V, x86), Unit Testing, CUDA, Bash
Tools: Vim, VSCode, Docker, Valgrind, GDB, Jupyter Notebook, Git, Arduino, Unix, PyTorch, Tensorflow