Jay Fleischer

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Employment Experience

Anduril – anduril.com Irvine, CA (2021-2022), Boston, MA (2022-2025), Mountain View, CA (2025)

Sensor Simulation Lead – Feb 2024 to Sep 2025 (Senior Software Engineer)

- Led the development of a new synthetic sensor simulation capability (cameras, sonar, lidar, etc) built on Unreal 5
- Hired and managed three engineers while coordinating closely with tech artists and engineers from other teams
- Took the project from idea in a business line to a platform capability (first in the company to do this twice)
- Deployed to over a dozen teams across Anduril plus an operator training simulation shipped to government users
- Generated billions of frames for SITL testing environments and annotated images for ML model training systems

Axon Technical Lead – Jan 2023 to Feb 2024 (Senior Software Engineer)

- Built v2 of Anduril's mesh network that routes traffic between drones, ground control stations and the cloud
- Delivered a prototype two weeks ahead of schedule for an initial customer that was 10x faster than the old system
- Collaborated with stakeholders across the company, to design architecture, APIs, simulation integration and clients
- Developed and flight tested a backwards compatibility layer in preparation for companywide rollout
- Onboarded team members, grew from 2 to 7 engineers, mentored, taught Rust, and provided thorough code reviews

Mission Autonomy Team Member – Jul 2021 to Dec 2022 (Software Engineer - Mission Autonomy)

- Developed Anduril's new v2 mission autonomy stack, from tasking to trajectories and planning algorithms
- Prototyped a new platform to simplify behavior creation and allow iteration in seconds or minutes, not hours
- Created a robust autonomy demo to show VIPs capabilities of the v2 stack running with behaviors
- Made a time saving update bot that was eventually responsible for 25% of PRs to Anduril's dependency monorepo

Berkshire Grey – berkshiregrey.com Boston, MA
Senior Robotics Software Engineer (2021), Robotics Software Engineer (2019-2021)

- Lead optimization effort, doubling pick rates thanks to my roadmap, instrumentation and changes across the stack
- Awarded the BG Belt for hackathon, Python 3 migration, and Ubuntu 18.04 upgrade. Received 3 peer awards
- Mentored new hires and improved onboarding resources to help everyone get up to speed
- Made software stack compatible with Kubernetes and created a deployment tool for running it in production
- Merged 860 pull requests for everything from bug fixes, optimizations and features to major cross company refactors

Aurora – aurora.tech Palo Alto, CA & San Francisco, CA
Hardware Intern (Summer 2018)

- Developed a pedestrian localization system for automatic labeling with RTK GPS
- Wrote calibration firmware for a power distribution board and a script for automatic calibration

Two Sigma Securities – twosigma.com New York City, NY
Software Engineering Intern (Summer 2017)

- Implemented a proprietary binary communications protocol to place orders for the Global Execution Services team

Phosphorus – acquired by kindbody.com New York City, NY
Engineering Intern (Summer 2016)

- One of 15 selected from 1,300+ applicants for FirstMark Elite internship at computational genomics startup

Education

University of Pennsylvania Philadelphia, PA
School of Engineering and Applied Science (2014-2019)

- Master of Science in Engineering in Robotics
- Bachelor of Science in Engineering in Computer Science + Mechanical Engineering & Applied Mechanics
- GPA: 3.97/4.0 masters, 3.86/4.0 undergrad; Dean's List 2014-15, 2015-16, 2016-17, 2017-18, 2018-19
- **Ralph Teetor Award** for being the senior who in the opinion of the department's faculty has demonstrated the qualities of ingenuity, creativity, scholarship, and service
- **Francis G. Tatnall Prize** for being judged most outstanding project showing ingenuity, proficiency and usefulness for senior design project. Built a coral reef surveying boat with 5 other engineers. Focused on system design, sensor integration, PCBs, autonomous waypoint control and a phone app for remote control.
- Projects included an autonomous robot hockey team, a superscalar CPU on an FPGA, kalman filters, a quadcopter flight controller, surreal numbers in Haskell, and a business plan for a medical 3D printing startup.

Penn Electric Racing – pennelectricracing.com (2014-2019)
Software Lead

- 3rd at FSAE Lincoln in 2019 with 4WD racecar
- Developed future autonomous car with a model predictive control simulation and cone detection neural network
- Wrote, debugged and optimized a field-oriented control algorithm for custom 30kW motor controllers
- Created STM32F7 DMA peripheral libraries and generated communication code to transmit and analyze data
- Designed, reviewed, soldered and debugged our 47 custom PCBs

Technical Skills

- **Most experienced with:** Rust, Python, C++, C#
- **Tools:** Ubuntu, Bash, Nix, Cargo, Protobuf, gRPC, ROS, Unreal Engine, Docker, Kubernetes, Jira, Jetbrains IDEs, QUIC, AWS, FFIs, MongoDB, VS Code, Git, SolidWorks, MATLAB, Simulink, Altium, CMake, HLSL, OpenGL, Office 365, Obsidian

Other Interests

- Ironman finisher
- Completed a 52 mile ultramarathon despite a 2-mile wrong turn
- Skied just about every run at Beaver Creek