# Advait Patel

advaitpatel04@gmail.com | linkedin.com/in/advait-patel | github.com/advait-patel-17 | Mobile: (309)363-5874

## EDUCATION

**University of Illinois - Urbana-Champaign** <span style="float:right">Champaign, IL</span>

*BS in Computer Science – GPA: 3.8/4.0* <span style="float:right">*Aug. 2022 – December 2025*</span>

**Relevant Coursework**: Computer Vision (Grad), Deep Learning for Robotics (Grad), Nonlinear Programming, Machine Learning, Algorithms, Probability/Stats, Data Structures, Systems Programming, Linear Algebra

## EXPERIENCE

**Dyna Robotics** <span style="float:right">September 2025 – December 2025</span>

*Research Intern* <span style="float:right">*Redwood City, CA*</span>

- Developed, trained, and evaluated novel architectures and auxiliary tasks for pretraining robot foundation models. Owned the full pipeline: data aggregation and processing, model implementation and training, and evaluation.
- Implemented a psuedo-labelling pipeline using open-source dense prediction models for synthetic data generation.
- Developed a custom FastAPI inference server to evaluate VLAs developed by external parties.

**Anduril Industries** <span style="float:right">May 2025 – August 2025</span>

*Software Engineer Intern* <span style="float:right">*Costa Mesa, CA*</span>

- Developed performance benchmarks and optimizations in Rust for Anduril's hardware interface layer.
- Optimized the performance of TCP calls between hardware resources, decreasing latency by more than 200x and increased throughput for mission-critical applications.
- Integrated benchmarking suite with CI tests and with Palantir Foundry, allowing customers easy access to metrics.

**University of Illinois** <span style="float:right">November 2024 – May 2025</span>

*Undergraduate Researcher* <span style="float:right">*Champaign, IL*</span>

- Explored evaluation of robotics policies through Real2Sim using 3D Gaussian Splatting and MuJoCo.
- Aligned point clouds between real world, Gaussian Splat, and MuJoCo to create a visually realistic simulation.
- Developed end-to-end pipeline for evaluating robot learning policies using a custom hybrid rendering method.

**Capital One** <span style="float:right">June 2024 - August 2024</span>

*Software Engineer Intern* <span style="float:right">*McLean, VA*</span>

- Developed a dashboard to derive insights from division-level AWS usage using Typescript and React.
- Decreased loading time on application page by 10x by optimizing GraphQL queries.

**Yield Protocol** <span style="float:right">May 2023 – August 2023</span>

*Software Engineer Intern* <span style="float:right">*Remote*</span>

- Finetuned SOTA large language models on enterprise-grade hardware with AWS Sagemaker and Huggingface APIs.
- Created a pipeline for a custom QA dataset, resulting in over 4,000 unique data points for model finetuning.

## LEADERSHIP/PROJECTS

**SIGRobotics (ACM @ UIUC)** | *Founder, Chair* | *Python, ROS 2, PyTorch, MuJoCo* <span style="float:right">April 2024 – Present</span>
- Trained pick-and-place imitation learning policies using PyTorch, LeRobot, and open-source robotic arms.
- Developed and open-sourced LeKiwi, a low-cost mobile manipulator, in collaboration with Huggingface/LeRobot. LeKiwi now has 1K+ stars on GitHub and has been built hundreds of times around the world.

**Robot Hackathon Project** | *Python, PyTorch, Huggingface*
- Won the second place prize and the Fashion Award at the NYC Robot Arm Hackathon.
- Built a T-shirt folding robot by training an ACT imitation learning policy on 85 demonstrations using LeRobot.

**UIUC Gies Disruption Lab** | *Technical Lead* | *Python, Huggingface, AWS* <span style="float:right">January 2023 – December 2023</span>
- Led a team of 6 software engineers to develop an AI tutor specific to UIUC courses using finetuned open-source LLMs, vector databases, and LangChain API integrations.

**AI Chess Pipeline** | *OpenCV, Python, PyTorch, OpenAI*
- Developed a pipeline that takes in a top down view of a chess board and determined board state using a Resnet-18.
- Developed an AI-assisted data annotation platform using GPT-4o-mini in order to label 1.5k images.

## SKILLS

Rust, Python, PyTorch, C, C++, Amazon Web Services (AWS), Kotlin, OpenCV, SQL, JavaScript, Typescript, Git/GitHub, Flask, React, PyTorch, Java, Keras, Pandas, NumPy, Matplotlib, Docker, Linux/Ubuntu, ROS