

Ryan Ni

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EDUCATION

University of California San Diego – UCSD

Expected Grad: 2028

B.S. in Computer Science, B.A. Media Arts (Cinematic/Film Studies)

3.8 GPA

Courses: Software Engineering, Operating Systems, Databases, AI/ML, Parallel Computing, Networks

18x Hackathon Winner: Top 5 Finalist @ OpenAI HQ Hackathon, #2 Globally @ \$3M pump.fun Build in Public Hackathon, Top 5/1,500+ interns @ Apple 2025 Hackathon/iContest, #1 Best Project @ UIUC, Texas A&M, UCLA, UCSD, UCSB, UCSC

EXPERIENCE

Apple | **Software Engineer Intern – Intelligent System Experience (ISE)**

Cupertino, CA | Jun 2025 – Sep 2025

- Placed Top 5/1,500+ interns for Best Future Apple Feature at iContest 2025 and pitched feature to 7 Executives; new feature is being shipped to production on iOS/macOS
- Refactored Apple Intelligence (AI) Notification Settings by streamlining an Objective-C data provider, reducing code duplication 66% and resolving system/UI rerendering issues
- Architected 2 new AI-powered iMessage features using data detectors, message vectorization, and a redesigned Contacts card UI for pin suggestions, pin summaries, and semantic message search
- Built end-to-end Swift UI notification testing app to debug daemons, entitlements, system bundles, notification UI

Q Lab | **AI/ML Research (Research Project Lead, TRELS candidate)**, under Dr. Qin

San Diego, CA | May 2025 – Present

- Investigating long-horizon strategic decision-making by developing a Gymnasium-based RL environment in Python/NumPy for seeded Polytopia weekly challenges and enabling 64 parallel agent rollouts
- Studying reward design and long-horizon credit assignment by comparing 8+ reward formulations across 50+ experiments, using Weights & Biases to track training dynamics and final challenge performance
- Developing strategic policies in PyTorch through behavioral cloning on 100+ expert state-action trajectories scraped from YouTube and ranked replays, initializing policies for downstream RL and search

XR Lab | **Software Engineer & Research Assistant**, under Dr. Kirsh

San Diego, CA | Jan 2025 – Jun 2025

- Developed a PyTorch speech emotion recognition (SER) model achieving 80% precision using Kaggle/EmoDB datasets
- Improved ML data-pipeline throughput ~40% by migrating experimental data from CSV/PostgreSQL to HDF5, enabling near real-time training and evaluation

SDxUCSD | **Events Director**

San Diego, CA | Nov 2024 – Present

- Founded a 300+ member technical founder community, organizing 20+ events with YC, Anthropic, xAI, Vercel, etc.

PROJECTS / LEADERSHIP

Orca | **Founder – Lightyear (HF0 incubated)** funded startup

San Francisco, CA | Summer 2026

- Built a consumer agent and a NATS JetStream distributed AI agent orchestration network for asynchronous, non-blocking task dispatch to coordinate 1,000s of agents across independently operated nodes
- Built a task marketplace enabling workloads including data labeling, world-model generation, and distributed AI operations to be decomposed and executed across an agent cluster; media distribution, market simulations, etc.
- Secured 22 contracts, led a 5-person team, and scaled installations from 0 to 100+ colleges before demo day

YOLO dex – YOLO labeling Agent | Top 5 Finalist @ OpenAI Hackathon – Codex

[Demo]

- Reduced manual video-labeling workflows from ~10 hours to ~10 minutes (60x), with the approach receiving validation from Sam Altman during judging; [Me Pitching to Sam Altman]
- Engineered an RL fine-tuning (RLFT) pipeline for specializing YOLO classifiers across granular labeling requirements
- Automated data E2E pipeline: YouTube URLs → frame extraction via ffmpeg + sub-agents → annotated datasets

ClawCraft (Opal) – AI Agents for Gaming and Data | #2 @ \$3M pump.fun Global Hackathon

[Pump.fun X Post]

- Built AI agent harness enabling OpenClaw nodes to autonomously play Minecraft and stream on Twitch, creating an open-world sandbox to studying multi-agent coordination and emergent behavior at scale
- Worked on an imitation learning pipeline that converts user telemetries into for train and evaluate agent gameplay

SKILLS

AI/ML: PyTorch, JAX, TensorFlow, OpenCV, Scikit-Learn, ONNX, LangChain, Reinforcement Learning, MCP, MediaPipe, Roboflow

Systems & Infrastructure: Linux, Docker, Kubernetes, CUDA, ROCm, AWS, GCP, FastAPI, Nginx, FFmpeg, Git, Cargo, uv/pip, Ruff

Languages: Python, C++, C, Rust, Go, TypeScript/JavaScript, Java, Swift, Objective-C, SQL, R, Dart

Data & Web: PostgreSQL, HDF5, MongoDB, Supabase, Firebase, React/Next.js, Tailwind, Vercel