

Aryaman Ramchandran

312-451-5790 • aryamanramchandran@gmail.com • [linkedin.com/in/aryaman-ramchandran/](https://www.linkedin.com/in/aryaman-ramchandran/) • [Portfolio](#)

EDUCATION

University of Illinois at Urbana-Champaign

Master of Science in Computer Science

Champaign, IL

Aug 2025 – Dec 2026

Loyola Marymount University

Bachelor of Science in Computer Science (3.94 / 4.00)

Los Angeles, CA

Aug 2020 – May 2024

EXPERIENCE

Software Engineer Intern

Turiyam AI

May 2025 – Aug 2025

Bengaluru, India

- Built Python CLI to package kernels/metadata into UUID-structured S3 folders and streamlined uploads via AWS SDK.
- Implemented worker service that polled S3, claimed jobs, and updated state with in-progress/completed/failed metadata.
- Automated lifecycle with results/error logging for transparent, reproducible workflows.
- Developed PyTorch pipelines to synthesize large-scale kernel input datasets for stress-testing custom AI accelerators.

Research Assistant

Loyola Marymount University

Jan 2024 – May 2024

Los Angeles, CA

- Prototyped CLI storytelling engine in Python integrating GPT-2/LLaMA via Transformers for agent planning and dialogue.
- Fine-tuned models with PyTorch, PEFT, and LoRA while leveraging Accelerate for distributed/mixed-precision training.
- Applied TRL (RLHF, preference optimization) to align agent behaviors and re-rank embeddings/reward models.
- Orchestrated multi-agent flows with LangGraph/Chain, FSMs (transitions), and asyncio for turn-based NPC concurrency.
- Persisted state using PostgreSQL, containerized experiments with Docker, and streamlined workflows with Typer.

Software Engineer

Gotham City LA

May 2022 – Aug 2022

Burbank, CA

- Rebuilt public website with JavaScript, TypeScript, React, and TailwindCSS.
- Designed Java + Express backend for nonprofit request tracking, with data surfaced via an admin portal.
- Delivered MongoDB scheduling system managing ~50 employees across 20+ fundraising locations.

Software Engineer Intern

Electronic Arts (EA)

Aug 2021 – Dec 2021

Stockholm, Sweden

- Optimized Battlefield 2042 rendering in C++ by profiling with Frostbite captures, PIX, SN Systems, Nsight, GPA, RGP, and RenderDoc, yielding a 3% framerate gain on Xbox/PlayStation under heavy memory load.
- Engineered Madden 23 opponent AI with finite-state machines and rule-based systems in C++/C#, enabling dynamic offensive and defensive formation selection.

Software Engineer Intern

Inhabitr

May 2021 – Aug 2021

Chicago, IL

- Built Python queries to interface with PostgreSQL database for user requests.
- Restructured schema with 500+ SKUs to normalize product data and improve accessibility.
- Reduced query complexity from brute-force $O(n)$ scans to $O(\log n)$ indexed lookups, significantly improving performance.

PROJECTS

MTG CureAll

Jun 2025 – Present

- Built full-stack trading card app in Java/JavaScript with Amazon RDS/PostgreSQL managing 84k+ card records.
- Integrated Scryfall API for image recognition and TCGPlayer API for real-time market price tracking.
- Prototyped AI deck-building assistant using PyTorch, NumPy, and used GPT for natural language prompts.
- Tracked ML experiments with MLflow/W&B to compare metrics and persist model artifacts for reproducibility.

MovieTime

Jan 2025 – Aug 2025

- Built full-stack movie booking app with Java/JavaScript, Express, and MongoDB backend.
- Integrated Clerk authentication and TMDB API for real-time movie listings.
- Designed admin portal for movie management with live database updates.

Pacman Battler

Jan 2024 – May 2024

- Built Python simulation framework where reinforcement learning agents competed using custom reward functions.
- Implemented agent logic with finite-state machines and trained models using PyTorch + NumPy.
- Applied RL evaluation techniques to benchmark win rates and refine through reward shaping and environment tuning.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL, Postgres, JavaScript, HTML/CSS

Libraries / Software: PyTorch, NumPy, TensorFlow, AWS, Express, MongoDB, NodeJS, React, Git, Docker, Kubernetes, Postman

Relevant Coursework:

ML for Software Engineering, Applied Machine Learning, Distributed Systems, Database Systems, Parallel Programming, Natural Language Processing, Algorithms and Analysis, Deep Learning, Reinforcement Learning, Computer Graphics, Linear Algebra