

Aryaman Ramchandran

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EDUCATION

University of Illinois at Urbana-Champaign <i>Master of Science in Computer Science</i>	<i>Champaign, IL</i>
Loyola Marymount University <i>Bachelor of Science in Computer Science (3.94 / 4.00)</i>	<i>Los Angeles, CA</i>
	<i>Aug 2025 – Dec 2026</i>
	<i>Aug 2020 – May 2024</i>

EXPERIENCE

Software Engineer Intern <i>Turiyam AI</i>	<i>May 2025 – Aug 2025</i> <i>Bengaluru, India</i>
<ul style="list-style-type: none">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 <i>Loyola Marymount University</i>	<i>Jan 2024 – May 2024</i> <i>Los Angeles, CA</i>
<ul style="list-style-type: none">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 <i>Gotham City LA</i>	<i>May 2022 – Aug 2022</i> <i>Burbank, CA</i>
<ul style="list-style-type: none">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 <i>Electronic Arts (EA)</i>	<i>Aug 2021 – Dec 2021</i> <i>Stockholm, Sweden</i>
<ul style="list-style-type: none">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 <i>Inhabitir</i>	<i>May 2021 – Aug 2021</i> <i>Chicago, IL</i>
<ul style="list-style-type: none">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	<i>Jun 2025 – Present</i>
<ul style="list-style-type: none">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	<i>Jan 2025 – Aug 2025</i>
<ul style="list-style-type: none">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	<i>Jan 2024 – May 2024</i>
<ul style="list-style-type: none">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