

Ethan Chen

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EDUCATION

Cornell University, Cornell Tech	New York, NY
MEng in Computer Science	May 2026
Relevant Coursework: Machine Learning Engineering, ML Hardware and Systems, Reinforcement Learning, Generative Models	
University of Illinois at Urbana Champaign	Urbana, IL
BS in Computer Science and Music , GPA: 3.74 / 4.00	May 2025
Relevant Coursework: Applied Machine Learning, Database Systems, Computer Systems, NLP, Deep Learning for Computer Vision	

PROFESSIONAL EXPERIENCE

Cornell Tech – S4AI, Researcher , New York, NY	Sep. 2025 - Present
• Collaborating with Prof. Gupta and Microsoft Azure Research team to co-design an energy-efficient LLM serving system.	
• Benchmarking distributed serving frameworks (vLLM, SGLang) to evaluate energy, throughput, and latency.	
• Contributed to SGLang by implementing tail-optimized LRU KV cache eviction, reducing tail latency by up to 33%.	
Bluffingface, Founder , Chicago, IL	
• Built an online poker platform with immersive 3D gameplay (Three.js), raising \$100,000 in angel investment.	Summer 2025
• Deployed scalable backend on AWS EC2 with redundancy and failover, supporting 800+ concurrent players.	
CreateRain, Software Engineer , Urbana, IL	Jun. 2024 – Jul. 2025
• Launched creatorain.com, an influencer matching platform, with vector database (Pinecone) and React.	
• Created a database of 2M+ US influencers with PostgreSQL and reached 50k+ influencers for clients.	
• Optimized AI customer support chatbot for Nutr (Shark Tank company) with RAG, reducing API costs by 90%.	

SELECTED PROJECTS

Algophony (Data Engineering, Deep Learning)	Jan. 2024 – May. 2024
Class Project, AI Music Generation	
• Trained generative music models in PyTorch, implementing CVAE and diffusion architectures.	
• Engineered 500+ GB of audio training data using NumPy, Pandas, and Python audio libraries.	
Loopbop (Web Dev, Graph Database)	Spring 2025
Capstone Project, 3D Music Genre Explorer	
• Created loopbop.com, a music genre explorer, with Three.js and React, blending real-time gameplay and 3D exploration.	
• Implemented graph database with Neo4j, enabling fast traversal of 30k+ songs and associated artists, genres, albums, etc.	
Reinforced Poker (Reinforcement Learning)	Summer 2024
• Trained a self-play poker bot using Q-Learning, outperforming algorithmic bots and real players.	
• Simulated 15 million games, running critical components in C/Cython and reducing training time by 30x.	
AltCredit (Machine Learning)	Fall 2025
HackIllinois '25 Project, ML credit scoring system to expand loan access for undocumented individuals.	
• Prototyped a fast backend with FastAPI to efficiently parse official documents and process user data.	
• Built a data pipeline using PySpark, updating the classification model in real time.	

TECHNICAL SKILLS

Coding Language: Python, C/C++, JavaScript/TypeScript, SQL, Java, Swift, Scala
Framework and Tool: PyTorch, Numba, Triton, SGLang, GCP, AWS, Neo4j, PostgreSQL, MongoDB, Redis, PySpark, React, vLLM