

Ryan Rana

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Interested in solving interdisciplinary problems with multi-modal transformers, agent tooling, robots & scalable systems.

EDUCATION

Rutgers University

New Brunswick, NJ

Bachelor of Science in Computer Science

Aug 24 – May 28

Relevant Coursework: Lin Alg, Discrete Math II, Stats for Research, DS & Algorithms, Calc II, Physics

Activities and Societies: Tech Director, GDGOC@RU (Google Developers Group on Campus); Blog Writer, USACS (Undergraduate Student Alliance of Computer Scientists); Selected Applicant, RUMAD (Mobile App Development) and Blueprint; 4x hackathon competitor, 2x winner (Rutgers × Fiserv, RWJ × Oracle)

EXPERIENCE

3E8 Robotics | Embodied AI Engineer | San Francisco, CA

Feb 26 – Present

- Developing VLA models and multimodal transformers combining vision, LiDAR, and spatial reasoning in human-shared indoor delivery; achieved sub-100ms latency on Jetson Edge, reducing navigation failures by 40%.

Centren Health | Software Engineer | New York City, NY

Nov 25 – Feb 26

- Built digital twins with time-series transformers and Bayesian PK/PD modeling from EHR and vitals data; deployed to 8 hospital partners as employee #4 with React/Node and cloud pipelines and monitoring.
- Contracted (SEAL Security) to build a full-stack application integrating vision-language models and vector embeddings for scalable surveillance in Houston, TX; delivered real-time dashboards, alerting, and API integrations.

Mesh | Co-founder | New Brunswick, NJ

May 25 – Oct 25

- Led engineering for AI-powered knowledge graph platform; ingested docs, threads, and meetings into a dynamic graph for natural language querying; managed infrastructure; scaled beta to 600+ users. (joinmesh.today)

Goldman Sachs Group, Inc | Possibilities Summit Intern

Jan 25 – Jun 25

- Selected (~15% acceptance) for first-year undergraduate program; completed engineering track with hands-on work on financial systems, APIs, and software development practices and presentations. Networked with technical staff.

Populus Fantasy | Software Engineer | Austin, TX

Jul 23 – Dec 23

- Delivered UI/UX improvements and CI/CD pipelines (Docker, GitHub Actions) for fantasy NBA platform; supported 4,500+ active users with higher uptime, faster feature releases, and automated testing.

Stem In Place | President | Martinsville, NJ

Aug 21 – Aug 23

- Scaled 501(c)(3) for underprivileged communities during COVID from 600 to 1,500 signups and 20 to 40 instructors; established curriculum, hiring, and ops. Built and taught Python and HTML courses.

SHOWCASED PROJECTS

Vault: End-to-end encrypted team workspace with RBAC file sharing and auditable task management; built with React, Node, and PostgreSQL. *1st place, Rutgers × Fiserv Hackathon.*

Osler: AI hospitalist assistant aggregating clinical guidelines, staffing, supplies, and KPIs via conversational RAG on Google Gemini; supports multi-site queries. *3rd place, RWJ × Oracle Health Hackathon.*

Cyphe: Built infinite content engine using Wikipedia to connect topics and an LLM to fuse Twitter, Reddit, textbooks, and memes with engagement tracking for personalized science content.

Robot Deformables: Imitation learning and RL for robotic handover; multimodal fusion (vision, proprioception, audio) for deformable object manipulation in PyTorch.

Trace: Manages retail supply chains with agents that analyze data, research macro trends, and execute secure smart contracts to vendors. *Columbia AI × Iterate Hackathon.*

TECHNICAL SKILLS

AI/ML: PyTorch, TensorFlow, OpenCV, Hugging Face, LangChain, ROS, Jupyter, Scikit-learn, Transformers, LangGraph, PEFT/LoRA, LlamaIndex, Librosa, Torchaudio, Pinecone, Weaviate, FAISS, **Languages & Stack:** Python, TypeScript, JavaScript, React, Node.js, C++, SQL, FastAPI, Go, Rust, **Tools & Infra:** AWS, GCP, Docker, Kubernetes, Terraform, Git, GitHub Actions, Figma, MLflow, Kubeflow, LangSmith, Prometheus, Grafana, **Data:** PostgreSQL, MongoDB, Snowflake, Firebase, Pandas, NumPy, Supabase, Pinecone, Weaviate, FAISS