Eldad Tolla

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Education

Columbia University, School of Engineering and Applied Science New York, NY

B.S. in Computer Science and Mathematics ***GPA: 4.00*** *May 2027*

- Dean's List (All Semesters), NSF SUPER Scholar, CS + Math Most Outstanding Student, Academic MVP

Experience

Research Intern — Texas Advanced Computing Center (TACC), UT Austin May 2025 – Aug 2025

NSF REU in High-Performance Computing and AI *Austin, TX*

- Implemented warm-start Q-learning agents in Pac-Man using DFS and ClosestDotSearch, achieving **38–62% faster convergence** and **67–133% higher final performance** vs. cold-start baselines
- Designed and executed **15 independent experiments** across **1000 episodes** in two environments, demonstrating an **89% improvement in win rate** (**45%** → **85%**)
- Benchmarked DFS vs. ClosestDot initialization strategies across **90 GPU HPC nodes**, identifying DFS as more stable and ClosestDot as faster-converging for optimal warm-start performance

AI Agent Builder Intern — NeuralSeek Aug 2025 – Present

Remote

- Built and deployed **10 production AI agents** for **2 enterprise clients**, automating policy, compliance, and document-search workflows using no-code pipelines and tool-augmented LLM orchestration
- Integrated OpenAI LLMs with vector databases containing **10k + documents**, enabling RAG that improved search relevance by ∼**30%** and reduced hallucinations by ∼**40%**
- Optimized agent pipelines through prompt routing and retrieval tuning, reducing response latency by **25%** and improving answer accuracy by ∼**20%** for enterprise workflows

Computer Science Research Intern Aug 2024 – Aug 2025

Randolph College *Lynchburg, VA*

- Built interactive D3.js dashboards analyzing **10+ years** of USDA crop and weather data, enabling researchers to identify rainfall and temperature patterns driving crop yield variation
- Engineered **25 +** climate features and built regression models achieving ∼**0.75** R^2 to identify key climate–crop correlations used to guide yield optimization strategies

Computer Science and Math Tutor Aug 2023 – Aug 2025

Randolph College *Lynchburg, VA*

- Delivered **250+ hours** of tutoring to **20+ students**, increasing average exam scores by **15%**
- Created **40+** custom proof walkthroughs and coding exercises across calculus, discrete math, and programming to strengthen conceptual understanding and problem-solving

IT Help Desk Assistant Aug 2024 – Aug 2025

Randolph College *Lynchburg, VA*

- Resolved **20+ weekly** technical support tickets for **300+ users** while maintaining **100% adherence** to 24-hour service-level agreements
- Implemented a digital inventory system tracking **200 + devices**, reducing equipment retrieval time by ∼**40%** and improving emergency response efficiency

Projects

Voice Aid — AI Speech Recognition | *Python, NLP, ML*

- Built LSTM and Transformer-based speech recognition models, improving communication accuracy by **60%** for users with speech impairments compared to baseline systems

Recall Royale | *Flask, React, JavaScript, SQLite*

- Developed a real-time collaborative quiz platform during a competitive hackathon, supporting **50+ concurrent users** with live lobbies, shared sessions, and dynamic question generation for group study

Leadership

Judiciary Chair, Student Representative Aug 2023 – Present

Randolph College

- Mediated **30+** cases per semester and implemented restorative justice, reducing repeat offenses by **40%**

Presidential Ambassador Aug 2024 – Present

Randolph College

- Represented the college at **20+** recruitment and donor events, engaging **300+** prospective students and alumni to support enrollment and donor outreach

Technical Skills

Languages: Java, C/C++, Python, JavaScript, SQL, R

Frameworks/Tools: PyTorch, TensorFlow, Flask, React, Node.js, AWS, Git

Coursework: Data Structures, Algorithms, Machine Learning, Reinforcement Learning, Linear Algebra, HPC