

Nickolas Regas

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EDUCATION

Washington University in St. Louis

St. Louis, MO

B.S. in Computer Science & Math, Minor in Electrical Engineering

Expected 05/2029

- GPA: 4.00/4.00, Dean's List, SAT: 1550 (Math: 800, EVBRW: 750)
- Coursework: Data Structures & Algorithms, Machine Learning, Object-Oriented Programming, Matrix Algebra
- Selected for Datadog DataPUPS Summit, 1 of 30 from 1,000+ applicants (2026)

TECHNICAL SKILLS

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

Libraries/Frameworks: React, FastAPI, Tailwind, Scikit-learn, LangChain, Pandas, NumPy, Node.js, Spring

Developer Tools: AWS, Docker, Git, GitHub Actions, Linux, REST APIs, SQLite, PostgreSQL, Jira

EXPERIENCE

Agentic AI & Machine Learning Research Intern

05/2026 - Present

Rutgers University, Dr. Zhao Zhang Lab for High Performance Computing and Big Data Systems New Brunswick, NJ

- Built an agentic LLM pipeline in Python with the Anthropic API (Opus/Sonnet, prompt caching) and an LLM-as-judge loop to auto-generate PaperBench-style grading rubrics, raising content/structure similarity from 66% to 88% while cutting inference cost 83% (47to8.23/run).
- Diagnosed a category-weighting bug in an LLM judge that over-scored code leaves vs. result leaves, ruling out 3 causes before isolating a biased prompt instruction, then validated against 14 reference benchmarks.

Software Engineer

01/2026 - Present

WashU VTOL

St. Louis, MO

- Developed an autonomous drone simulation pipeline using Gazebo, PX4, QGroundControl, and Python to model firefighting mission scenarios, enabling rapid mission iteration before real-world flight testing
- Implemented ArUco marker-based computer vision and UDP-based communication for precision navigation and autonomous landing, achieving 5+ successful autonomous test flights

President

12/2025 - Present

McKelvey Computer Science & Engineering Fellowship

St. Louis, MO

- Coordinated 10+ exclusive industry info sessions with engineers and recruiters from Valkyrie Trading, Gemini Trust, Databricks, and others, building a structured recruiting pipeline for 40+ fellows

Research Scholar

06/2024 - 08/2024

The Governor's School of New Jersey Program in Engineering & Technology

New Brunswick, NJ

- Developed and tested advanced pathfinding algorithms (A* & RRT*) for unmanned aerial vehicles in collaboration with Lockheed Martin, identifying the most efficient navigation strategies
- Presented at MIT's Undergraduate Research Technology Conference and published [paper](#) in IEEE Proceedings

PROJECTS

McKelvey Fellowship Attendance Tracker | *Java, Typescript, React, Spring, Docker, AWS* | [Link to App](#)

- Built and shipped a full-stack attendance app for 80 members (React/TypeScript, Spring Boot/Java 21, PostgreSQL, JWT auth, 62 tests), cutting exec attendance-tracking time by $\approx 75\%$ (1 hour/wk to 15 min/wk)
- Deployed to production on AWS (EC2 + Docker, RDS, S3/CloudFront) with automated GitHub Actions CI/CD via OIDC, ECR, and SSM deploying on every merge.

Cryptocurrency Order Book & Matching Engine | *C++20, SQLite, CMake, Google Test* | [GitHub Repository](#)

- Built a thread-safe limit order book and price-time priority matching engine in C++20 with fixed-point arithmetic for deterministic precision and a producer-consumer simulator driven by live BTC prices from CoinMarketCap
- Persisted trades to SQLite via prepared statements, computed rolling VWAP, spread, and volatility with Welford's algorithm, and benchmarked p50/p99 latency from $N = 1$ to 100k orders

Patho Disease Data Visualizer and Predictor | *Typescript, Node.js, React, FastAPI* | [Link to App](#)

- Won Best Use of Featherless AI out of 72 teams at WashU Google DevFest by building an LLM pipeline that generated COVID-19 forecasts across all 3,142 U.S. counties through 2028 using multi-source CDC data
- Built a full-stack geospatial dashboard with drill-down national $\rightarrow$ county mapping and a fault-tolerant AI inference pipeline with automatic checkpointing, serving 8 years of epidemic predictions across 3,142 U.S. counties