

Patrick Gadula

773-494-1791 | gadulapatrick@gmail.com | [linkedin.com/in/patrick-gadula](https://www.linkedin.com/in/patrick-gadula) | github.com/patrick-gadula

EDUCATION

University of Illinois at Urbana-Champaign

B.S. in Mathematics and Computer Science

Aug 2023 -- May 2025

GPA: 3.45/4.00

University of Illinois at Chicago

B.S. in Computer Science with Software Engineering Concentration

Aug 2021 -- May 2023

GPA: 3.83/4.00

EXPERIENCE

Full Stack Developer Intern

WishTender

May 2024 -- Aug 2024

Chicago, Illinois

- Designed a responsive UI with HTML/CSS for seamless use across desktop and mobile, enhancing user experience.
- Implemented a responsive React frontend, increasing average session duration by 25% by integrating dynamic animations and real-time WebSocket updates to enhance user engagement.
- Enhanced code quality and deployment reliability, reducing production defects by ~30% and shortening release cycles by ~25%, by leading peer code reviews, increasing unit test coverage, and optimizing CI/CD workflows.
- Optimized database performance as measured by a 30% reduction in query response times by adding targeted indexes and restructuring SQL queries.
- Developed unit tests for new features and bug fixes, improving overall release quality.

PROJECTS

Vet-Clinical Chatbot | LangChain, Python, RAG, LLM, NLP

- Developed an NLP chatbot that improved retrieval accuracy by 30% across 100+ veterinary cases, by implementing LangChain with FAISS vector search.
- Implemented TF-IDF keyword relevance scoring across a large corpus, improving keyword extraction precision by ~30%.
- Implemented domain-specific NLP pipeline for tokenization, preprocessing, and semantic embedding of veterinary texts.

Economy and Essentials in Minecraft | Java, OOP, documentation, docker

- Designed and extended a server-wide economy system, increasing player engagement by ~30% and in-game transactions by ~40% by implementing modular custom currencies and scalable shop APIs.
- Applied object-oriented design principles for clean and maintainable code.
- Utilized Bukkit documentation to develop custom event handlers, commands, and data persistence features for seamless server integration.

Algorithmic Trading Backtester | Python, Docker, pandas, yfinance, statsmodel, SMA

- Built a reproducible trading research environment using Docker, yfinance, pandas, and statsmodels.
- Implemented SMA crossover strategies with parameter optimization and volatility filters.
- Integrated ATR based stop-loss and profit target logic into SMA backtests to capture realistic trade exits.

TECHNICAL SKILLS

Languages: Python, Java, C++, HTML/CSS, MySQL, PostgreSQL, JavaScript, TypeScript

Frameworks: React, Express.js, Node.js, Next.js, SpringBoot, Flask, PyTest

Developer Tools: MongoDB, Git/Github, OpenAI, AWS, Docker, VSCode, IntelliJ, Copilot

Libraries: NumPy, TensorFlow, pandas, Matplotlib, scikit-learn, PyTorch