Nickolas Charles Goodis

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Education

University of Miami Coral Gables, Florida, August 2022 - May 2026
Bachelor of Science in Computer Science
Bachelor of Science in Mathematics
Bachelor of Science in Data Science and Artificial Intelligence

- **GPA: 3.9** | **SAT:** 1520/1600
- **Relevant Coursework:** Probability Theory, Modern Algebra, Machine Learning, Software Engineering, Theory of Computing, Data Structure and Algorithm Analysis, Statistics Theory, Real Analysis, Operating Systems, Computer Networks, Linear Algebra

Professional Experience

***Nuclear Data Science Intern,* NextEra Energy** Juno Beach, Florida, August 2025 – Present

- Built and deployed MCP server enabling the retrieval of operational data from Nuclear Postgres database for enterprise AI assistant
- Assisted in developing, optimizing, and developing a ReAct AI agent for automating nuclear MSPI compliance monitoring processes
- Enhanced security and performance across multiple AI model repositories for production deployment

***Undergraduate Researcher,* University of Miami** Coral Gables, Florida, January 2024 – Present
Research under Director of Graduate Studies, Dilip Sarkar, on advanced machine and deep learning applications

- Engineered an ensemble of networks boosting N-shot learning performance by up to 15 percent
- Implemented a state-of-the art W-Net architecture to generate synthetic masks for medical datasets in PyTorch
- Conducted experiments to minimize expert annotations in medical image segmentation, through a semi-automatic approach
- Co-authoring a research paper on the semi-automatic segmentation method, scheduled for publication this year

***Quantitative Trader Intern,* Greenland Risk Management** Dallas, Texas, August 2024 – December 2024

- Developed a news-based futures trading algorithm for cotton, leveraging web scraping, MongoDB, and AWS containerization
- Engineered a multi-stage pipeline: web scraping large datasets, classifying relevance, and training LLMs to determine article outcomes
- Implemented predictive trading based on LLM outputs, demonstrating proficiency in end-to-end cloud ML pipeline development

Projects

Blockchain Analytics API | Python, Rust, PostgreSQL, MongoDB, Neo4j, AWS

- Architected and developed a high-performance API to store and analyze millions of blockchain transactions per day across all EVM compatible networks (Base, Ethereum, BNB), Bitcoin, Solana, and XRP, with support for both real-time and historical data update
- Designed scalable and optimized endpoints to enable exchange identification and transaction pattern analysis for external application

Game Theory Optimal Poker Algorithm | Rust

- Implemented Counterfactual Regret Minimization (CFR) to iteratively refine strategy, resulting in a near-optimal poker algorithm
- Achieved Nash equilibrium through extensive training, creating a balanced strategy that minimizes exploitability

Automated AI Researcher | Python

- Leveraged multiple LLM API's for determining and analyzing arXiv research papers, to develop and expand upon a research query
- Designed an interactive CLI with Rich library providing real-time progress tracking, and structured research result management

Pairs Trading Statistical Arbitrage Optimizer | Python, AWS

- Engineered a predictive model using PyTorch, Pandas, and Yahoo Finance to identify optimal entry points for pairs trading arbitrage
- Validated model efficacy through extensive back testing, achieving a 600% return and 2.8 Sharpe Ratio over a 10-year period
- Implemented live paper trading functionality via Alpaca API and AWS, enabling daily market participation

Personal Website | React, JavaScript, HTML/CSS, Vercel | Link

- Designed and developed a personal website showcasing projects and experience, ensuring compatibility on all types of devices

Donation Blockchain Portal | Solidity, JavaScript, React, Node.js, Vercel, Foundry | Link

- Built a decentralized donation app with Solidity and React, enabling secure ETH transactions, donor tier tracking, deployed on Vercel
- Utilized smart contracts to enhance the app with contract owner recognition, to enabling secure and exclusive fund withdrawals

Machine Learning Deployment Platform | Python, JavaScript, HTML/CSS, Docker, AWS, Nginx | Link

- Developed an image captioning system combining computer vision and NLP techniques and a multilingual translation model using PyTorch, Spacy, and Hugging Face, capable of automatically detecting input and translating between six languages

Android Mobile Application Portfolio | Java, SQLite

- Created multiple Android applications including a strategic game (Tic-Tac-Toe) and a content management system (Blogging App)

Extra-Curricular Activities

***Research Analyst,* Bonsai Applied Computation Group,** Coral Gables, Florida January 2024 – Present

- Participated in IMC's Prosperity-2, a 15-day long trading competition that gave exposure to trading over a simulated marketplace
- Developed a algorithm for identifying ideal pair-candidates through k-means clustering and forecasting optimal entry and exit positions through an LSTM (long-short term model)
- Conducted research and co-authoring a research paper on Ethereum DeFi Arbitrage scheduled for publication this year

Technical Skills

Languages: Python, Java, C, C++, JavaScript, Rust, HTML/CSS, SQL, Solidity, TypeScript, PERL
Developer Tools: Github, Cursor, VSCode, AWS, Linux, Docker, Neo4j, Nginx, Android Studio, MongoDB, Vercel, Foundry, PostgreSQL
Libraries/Frameworks: PyTorch, Sci-Kit Learn, NumPy, Pandas, Flask, React, Node.js, Next.js