

ALEJANDRO PINTO

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EDUCATION

Rutgers University – New Brunswick, Piscataway, New Jersey Sep 2023 - May 2027

- *BS in Computer Science, Double Major in Data Science, Minor in Mathematics*
- **Coursework:** Graduate Artificial Intelligence, Regression Methods, Data Science, Linear Optimization, Data Structures
- **Awards & Affiliations:** Dean's List x4, 3.95 GPA, Phi Beta Kappa Member, ColorStack Member

EXPERIENCE

Software Development Engineer Intern - Amazon Sep 2025 - Dec 2025

Arlington, Virginia

- Built a React + TypeScript dashboard in the AWS Outposts Console, integrating 3+ security-critical APIs and achieving 90%+ test coverage through comprehensive Jest and Cypress suites.
- Led cross-functional collaboration with 20+ designers, security engineers, and stakeholders through authoring a comprehensive technical design doc, reducing development time for the new Outposts dashboard by ~15% through streamlined API integration decisions and unified UX expectations across teams.

Decoded: Data at Bloomberg - Bloomberg Aug 2025

Princeton, New Jersey

- Selected from 350+ applicants (top 10%) for Bloomberg's competitive data analytics program and collaborated with engineers and data scientists on building exploratory analytics for equity & fixed-income market datasets, gaining hands-on experience with market microstructure, real-time data pipelines, and Bloomberg Terminal data applications.

Machine Learning Research Intern - Harvey Mudd College Jun 2025 - Aug 2025

Claremont, California

- Built a MagnaTagATune-based contrasting concept pair dataset generator (3k+ pairs) using PyTorch for MusicGen, applying controlled audio transforms and extracting layerwise embeddings.
- Developed compute-efficient steering algorithms by training learnable PyTorch tensors using the contrasting pair dataset that beat DiffMean baselines by at least 50%; validated via CLAP score, Fréchet Audio Distance, perplexity scores, and PCA plots.

Machine Learning Research Assistant - Rutgers May 2024 - Aug 2024

Piscataway, New Jersey

- Collaborated with Dr. Wang at WHIRLab to develop an LLM-based algorithm solving differential equations ~20% more efficiently than symbolic regression while improving interpretability over SOTA PINNs via sparse, human-readable representations.
- Presented research to 100+ attendees at the Rutgers Aresty Summer Science Symposium, showcasing researched methods.
- Delivered a presentation at the 77th Annual Meeting of the APS Division of Fluid Dynamics to 200+ researchers, focusing on low-order modeling in fluid dynamics using our algorithm.

Imaging Lead & Developer - Rutgers University Autonomous Sep 2023 - Present

Piscataway, New Jersey

- Lead 20 members developing a drone for the AUVSI SUAS competition, improving mission-readiness throughput by creating testing protocols and leading image-processing system integration.
- Built object detection (95% accuracy) and image stitching algorithms producing high-resolution, Google Maps-quality mosaics.

Undergraduate Research - Rutgers Oct 2023 - May 2024

Piscataway, New Jersey

- Collaborated with a team of researchers to enhance the mathematical capabilities of large language models by applying chain-of-thought prompting techniques to improve reasoning and problem-solving accuracy.

PROJECTS

Equity Strategy Backtesting Toolkit, Stock-Trading Models & Backtesting [GitHub] Aug 2025

- Built a Python toolkit & simple backtesting framework to prototype rule-based, ML, & DL strategies (later migrated to Backtrader)
- Backtested ~14.8% annualized return (CAGR) from 2022–2025 for a simulated-annealing-style model, outperforming buy&hold.

Web Server, Web Server Built in C [GitHub] Mar 2025

- Built a Web Server in C that handles concurrent HTTP and loading static web pages using the poll and socket libraries.
- Integrated GitHub Actions leading to reduced deployment time onto the server.

TECHNICAL SKILLS

Languages: Python, Java, Rust, R, C, C++, MySQL, HTML/CSS, JavaScript/TypeScript, MATLAB

Frameworks/Tools: Pandas, Keras, TensorFlow, PyTorch, NumPy. Django, GitHub Actions, Hugging Face, React, Cypress

Concepts: Machine Learning, Artificial Intelligence, Backend Development, CI/CD, NLP