Nicolas Slenko

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Education

University of Florida — Gainesville, FL

Bachelor of Science in Computer Science, Minor in Statistics, GPA: 4.0 — *Aug 2023 – May 2027*

- **Relevant Coursework:** Fundamentals of Machine Learning, Machine Learning Engineering, Operating Systems, Data Structures and Algorithms, Programming Fundamentals in Python and C++, Introduction to Probability, Introduction to Statistics Theory

Experience

Incoming Software Engineer Intern — May 2026 – Aug 2026

Roblox — *San Mateo, CA*

Machine Learning Operations Intern — Jun 2025 – Aug 2025

Regal Rexnord — *Grafton, WI*

- **Engineered** a Python/Snowflake pipeline to unify millions of SAP/Oracle ERP records, improving data quality and cutting manual validation by **80%**, enabling faster and more reliable reporting.
- **Standardized** product data across ERP systems by creating a master record framework, **eliminating 20% of duplicate records** and streamlining downstream analytics.
- **Deployed and optimized ML models** (HDBSCAN, TF-IDF, Sentence-BERT, RapidFuzz fuzzy matching) on Databricks with PySpark, **boosting match accuracy by 25%** and increasing inference throughput **5**×.

Machine Learning Engineer Intern — Oct 2024 – Dec 2024

Naval Surface Warfare Center — *Remote*

- **Increased aerodynamic efficiency by 50%** by implementing a reinforcement-learning (DDPG) agent in MATLAB for airfoil design optimization.
- **Reduced drag coefficients by 20%** through physics-informed reward shaping, integrating XFOIL and Blade Element Momentum (BEM) theory.

Software Engineer Intern — May 2023 – Jul 2023

LightBox — *Shelton, CT*

- **Automated data recovery processes** with a Python CLI, cutting query execution times by **50%**.
- **Developed and deployed** geospatial data visualizations using ArcGIS Online, supporting customer-facing analytics and sales operations.

Projects

AI Resume Analysis Research Project | *Next.js, React, TypeScript, Node.js, OpenAI* — Aug 2025 – Present

- **Conducting research** with Dr. Armaneet Kapoor on a full-stack platform (Next.js, React, TypeScript) that parses resumes and produces **personalized recommendations** using historical student data and custom algorithms.

Everyday Object Classification Project | *PyTorch, Python, Matplotlib* — Mar 2025 – May 2025

- Achieved **78.43%** test accuracy across **12** classes (**+70.87 pp** vs. 7.56% baseline) by building and training a CNN with on-the-fly data augmentation in **PyTorch/Python**.
- Improved reliability on high-impact classes to **85–89%** and accelerated model selection by applying targeted regularization and instrumenting **Matplotlib** visualizations (learning curves, per-class metrics).

Club Companion — Student & Club Matcher | *Next.js, FastAPI, PostgreSQL, Docker* — Jan 2025 – May 2025

- **Developed** a full-stack platform that matches students with university clubs via personalized discovery
- **Partnered** with university organizations to scale platform access and increase student engagement.

Autonomous Vehicle Project with SHPE | *Python, TensorFlow, Raspberry Pi* — Aug 2023 – May 2024

- **Trained** traffic-sign and obstacle detectors with achieved **80%+** detection accuracy in simulation.
- **Improved** decision-making latency by **15%** through optimized image preprocessing and classifier tuning.

Technical Skills

Languages: Python, C++, Java, JavaScript, TypeScript, HTML/CSS, Matlab
Frameworks & Libraries: React, Next.js, FastAPI, Flask, Spring Boot, Node.js, PyTorch, TensorFlow, scikit-learn, SciPy, Matplotlib, sentence-transformers, HDBSCAN, RapidFuzz
Data, Platforms & Databases: PostgreSQL, MySQL, Snowflake, Databricks, PySpark, Docker