

Laurynas Lukas Kanopka

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Detail-oriented Software Engineer specializing in full-stack development (Python, FastAPI, Vue.js) and applied machine learning. Proven ability to architect and deploy scalable, end-to-end applications through professional internship and freelance experience. A University of Florida Computer Science graduate (3.96 GPA) seeking to leverage these skills in an entry-level Software Engineer role.

Education

University of Florida, Herbert Wertheim College of Engineering Gainesville, FL
Bachelor of Science in Computer Science, Minor in Statistics Expected May 2026
Cumulative GPA: 3.96
Relevant Coursework: *Natural Language Processing, Algorithm Abstraction & Design, Data Structures & Algorithms, Design of Experiments, Statistical Modeling, Regression Analysis, Operating Systems*

Technical Skills

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- **Languages:** Python, Java, C++, SQL, R, JavaScript
 - **Web Development & Frameworks:** FastAPI, Flask, React, Vue.js, Node.js, Pydantic, SQLAlchemy
 - **Developer Tools & Cloud:** Git, Docker, Google Cloud (Gemini API, OAuth), DigitalOcean, Netlify, Jira, Agile (Scrum)
 - **AI & Machine Learning:** PyTorch, Scikit-learn, Pandas, NumPy, NLTK, SpaCy

Work Experience

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- **Software Engineer** | Swimage *Remote*
Company providing OS imaging and disaster recovery solutions *August 2025 – Present*
 - Spearheaded the backend migration of a legacy client portal to a modern Vue.js and FastAPI stack, improving API response times by 40% through optimized SQL queries and efficient Pydantic data serialization.
 - Architected a full-stack interface using Python and Vue.js to orchestrate remote OS and software installations across thousands of endpoint computers.
 - Engineered an image-creation engine leveraging modular building blocks, utilizing advanced flattening logic and efficient SQL querying to compile and push deployment configurations to the database.
 - Designed a clean, intuitive UI integrated with custom backend routing to seamlessly dispatch targeted installation instructions to specific hardware.
 - **Full Stack Software Engineer Intern** | Swimage *Naperville, IL*
June 2025 – August 2025
 - Engineered a scalable data pipeline in Python for a core classification feature, integrating multiple third-party LLM APIs (Google Gemini, OpenRouter) to enhance system capabilities.
 - Reduced manual work time for software classification by 80% by architecting an automated Python data pipeline that processed, classified, and inserted results into an MS SQL database.
 - Designed and implemented a secure, multi-tenant authentication system using FastAPI and JWTs, employing a bitmask-based permissions model for highly efficient and scalable role management.
 - **Freelance Full Stack Developer** | ClipAndTrim.io *Remote*
Contract project for a client based in the Netherlands *March 2025 – Aug 2025*
 - Owned the end-to-end development and successfully delivered a full-stack web application, enabling users to create, preview, and download clips from any YouTube video via timestamps.
 - Architected a robust Python/FastAPI backend using yt-dlp/FFmpeg, deployed on DigitalOcean and leveraging Beam.cloud for GPU-acceleration, ensuring video encoding completes 20x faster than CPU-based processing.
 - Implemented a responsive React/TypeScript frontend with seamless Stripe and Google OAuth integration, processing all user data and payments securely through a Supabase database.

Software Development Projects

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- **Gator Beach Volleyball Tournament App** *Vue.js 3, TypeScript, Supabase*
Personal Project | 100 Monthly Active Users
 - Spearheaded the digital transformation of the organization's tournament operations by replacing a manual, paper-based system with a centralized web application.
 - Increased tournament management efficiency by over 90% by automating logistical tasks such as player imports, scheduling, and bracket generation.
 - **Programming Language Design and Implementation** *Java, Compiler/Interpreter Design*
University of Florida - Programming Language Concepts Course Project
 - Implemented a complete, statically-typed programming language in Java featuring a lexer, recursive-descent parser, type analyzer, tree-walk evaluator, and a code generator targeting Java.
 - **Generative Pretrained Transformer (GPT) Model** *Python, PyTorch*
Personal Project

- Developed a fully functional GPT model from scratch in PyTorch, translating the "Attention Is All You Need" research paper into a modular and well-documented codebase.
- Engineered an efficient training loop with batch processing and dropout regularization, resulting in a 15% reduction in validation loss.

Publications

- "GraphRAG: A Massive Leap in LLM Real-World Intelligence" *Loyola University Chicago, Lab for Applied Artificial Intelligence, Q4 2025*
[Available Here](#)

Leadership and Involvement

- **UF Ignite Student Innovation:** Member
- **UF Men's Club Volleyball:** Head of Merchandise (2024-25)
- **UF Women's Gator Volleyball:** Volunteer Practice Player (2024-Pres)

Certifications

- **Supervised Machine Learning: Regression and Classification** *DeepLearning.AI & Stanford via Coursera*