Jack Lille Yerington

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EDUCATION

University of Michigan   Ann Arbor, MI
Bachelor's in Computer Science & Spanish, Minor in Global Media Studies   *Expected Graduation: May 2026*
- GPA: 3.62
- Awards/Honors: University Honors
- Relevant Coursework: Programming Languages, Computer Vision, Web Systems, Linear Algebra, Theory of Computation, Computer Organization and Hardware, Data Structures and Algorithms, Discrete Mathematics, Intro to Data Science

Poly Prep Country Day School   Brooklyn, NY
High School Diploma   *September 2018 – June 2022*
- GPA: 3.9
- Awards/Honors: Junior Spanish Linguist Award, Senior Spanish Linguist Award, Cum Laude Society

EXPERIENCE

Data Science/AI Intern   June 2025 – August 2025
AION Biosystems   *New York, NY*
- Designed an end-to-end Python data engineering pipeline to process patient PDFs with Excel metadata, automating file operations and improving document traceability for clinical operations
- Engineered an ML-based table extraction system using NLP to parse medical documents and normalize clinical fields into structured datasets, eliminating manual review and enabling real-time analytics
- Implemented a HIPAA-compliant PHI redaction system using regex and spaCy NER models to detect and mask identifiers, enabling secure data sharing

Media Asset Management Fellow   September 2024 – January 2025
University of Michigan   *Ann Arbor, MI*
- Automated media asset de-duplication and organization through custom Python scripts, processing verified media datasets and optimizing data accuracy while enhancing team accessibility to critical resources
- Optimized metadata management for large-scale media archives, implementing structured data schemas to ensure accurate and efficient data retrieval across distributed systems
- Integrated Python automation and Generative AI tools to streamline project workflows, achieving measurable improvements in processing efficiency and reducing manual processing time

PROJECTS

Match Cut | *Python, Flask, TensorFlow, Google Drive API, scikit-learn*   Fall 2025
- Developed a web application using Flask and TensorFlow with ResNet50 models for image similarity matching across film datasets, utilizing feature extraction, cosine similarity calculations, and threshold filtering
- Implemented dual data management with local processing and Google Drive API integration, building responsive drag-and-drop interface using scikit-learn and PIL/OpenCV for sub-second queries
- Engineered scalable architecture for Heroku and Railway platforms, incorporating efficient memory management, pre-computed feature vectors, and automated indexing for large-scale collections

PeteCode | *Python, TypeScript, React, Django, BAML (BoundaryML), GroqCloud, ElevenLabs*   Fall 2024
- Developed an interactive web tool using React and Django that utilizes complex LLMs to solve LeetCode problems, providing in-depth explanations through a familiar voice interface (e.g., Peter Griffin) for enhanced learning
- Integrated SupaBase for database management and utilized GroqCloud with BAML on a llama3-70b-8192 model for optimized NLP and LLMs to deliver accurate, context-rich problem explanations
- Leveraged ElevenLabs through the FastAPI framework to train voice models, enabling auditory learners to benefit from detailed voice-based problem walkthroughs

Instagram Client-Side Dynamic Site Generator | *Python, Flask, JavaScript, React, SQL, AWS*   Fall 2024
- Developed a Python-based Instagram clone deployed to an AWS EC2 instance with client-side dynamic pages using React and a RESTful API built with Flask, enabling rich interactive features without page reloads
- Refactored server-side code into a REST API to facilitate asynchronous data retrieval and manipulation via AJAX calls
- Implemented advanced features such as infinite scrolling, real-time updates for likes and comments, and double-click-to-like functionality

TECHNICAL SKILLS

Programming Languages: Python, Java, C/C++, HTML/CSS, Rust, JavaScript, TypeScript, SQL, PostgreSQL, BAML
Web Technologies: HTML/CSS, React, Django, Flask, Node.js, FastAPI, PIL/OpenCV, SupaBase
Data Science & AI: PyTorch, TensorFlow, pandas, NumPy, Matplotlib, scikit-learn, spaCy
Cloud & DevOps: AWS EC2, Git, Docker, Shell Scripting
Tools: VS Code, IntelliJ, Figma, Xcode, GroqCloud, ElevenLabs