Luke Lambert

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Education

The University of Tulsa | Tulsa, Ok
Master of Science Computer Science; GPA 4.0 — *January 2025* – May 2026
Bachelor of Science Computer Science; Mathematics; GPA 3.94, 4.0 — *August 2021* – December 2024

Experience

Optiver | Austin, Tx — *Summer 2025*
Incoming Software Engineering Internship
- Automated Trading Risk Team

Capital One | McLean, Va — *June 2024 – August 2024*
Software Engineering Internship
- Developed generative AI solutions to efficiently process and interpret dispersed data sets using Python, Chroma, NumPy, Pandas, Jupyter notebooks, Matplotlib, Langchain, and Gradio.
- Implemented Retrieval-Augmented Generation (RAG) with vector databases to supply the generative AI model with critical information, enhancing response accuracy and relevance.

USAA | Plano, Tx — *May 2023 – August 2023*
Software Engineering Internship
- Developed a status dashboard web application using React.js to monitor and visualize database inconsistencies
- Built and integrated Java Spring Boot APIs to enable real-time data updates.

Research and Projects

Oklahoma Cyber Innovation Institute (OCII) | Tulsa, Ok — Spring 2025
Graduate Researcher
- Researched and developed educational and cybersecurity applications for quadruped robots, focusing on threat detection and mitigation.

Flick Finder YouTube Demo GitHub
- Flick Finder is a movie recommendation web app leveraging statistical learning to give movie recommendations based on movies the user likes
- Developed with a Python backend using Pandas and Flask, and a user-friendly frontend built with React.ts and Bootstrap for a seamless and responsive user experience

NCAA Cross Country Data Analysis GitHub
- Scraped, cleaned, and analyzed NCAA Cross Country data from 2018 to 2022, performing various statistical analyses and regressions on the data. Utilized Pandas, Matplotlib, Scikit-learn, and Beautiful Soup to process and visualize data.

Other Project Links:
https://youtu.be/dTMFMGquoh4, https://lukelambert11.github.io/MathTimeline/, lukelambert11.com , trackcalculator.run

Skills

Programming: Python, C++, Java, Swift, Javascript, HTML, CSS
Libraries/Tools: Pandas, Flask, Spring, React, Bootstrap, SwiftUI, Git, Postman, JetBrains, GitHub, GitLab

Relevant Coursework

Algorithms, Data Structures, Software Engineering, Analysis of Algorithms, Computer Networks, Database Systems, Data Mining, High Performance Computing, Digital Design, Computer Graphics, Discrete Mathematics, Linear Algebra, Operating Systems, Cyber Security, Numerical Methods, Real Analysis, Modern Algebra, Calculus 1-3, Differential Equations, Statistics

Involvement

NCAA Division 1 Cross Country and Track Athlete — *August 2021 – Present*
- *NCAA Cross Country National Championship Competitor*
- *American Athletic Conference Men's 10,000 Meters, 4th Place, Men's 5000 Meters 5th place*
- *American Athletic Conference Men's Cross Country Freshman of the Year*

Tau Beta Pi (2022-Present)
Tandy School of Computer Science Grader