

BLAKE BURNLEY

Atlanta GA, 30318

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, GA

Bachelor of Science in Computer Science | Minor in Law, Science and Technology

August 2023 – May 2027

GPA: 3.35

RELEVANT COURSEWORK

- Machine Learning
- Introduction to Artificial Intelligence
- Data Structures and Algorithms
- Introduction to Database Systems
- Technical Communication
- Design and Analysis of Algorithms
- Applied Combinatorics
- Differential Equations
- Deep Learning

EXPERIENCE

Nexus Enablement, Atlanta, GA

Software Engineer Intern

February 2026 – May 2026

• AI-Powered Due Diligence Pipeline | Personal/Internship Project

- Architected and deployed an end-to-end AI due diligence automation pipeline processing multi-document investment deal (PDF/DOCX) using AWS Lambda, Claude via AWS Bedrock, and Reducto-based document parsing.
- Built parallelized extraction workflows with confidence scoring, source excerpt validation, and structured schema generation to automate investment memo creation, including financial analysis, risk assessment, and recommendation outputs.
- Developed supporting infrastructure including reviewer permissions, audit logging, extraction correction workflows, scheduled cleanup jobs, email notifications, and PDF/DOCX export functionality across four distributed Lambda services.

• Cross-Document Intelligence & Citation System

- Engineered a semantic search and citation verification system enabling reviewers to trace AI-generated outputs back to original PDF/DOCX source documents with inline browser rendering and highlighted citations.
- Implemented a five-stage text-matching pipeline (exact, sequential, prefix, chunk-based, and fuzzy trigram matching) to robustly locate excerpts across unstructured documents and scanned layouts.

Metro Atlantic Aquatic Club, Atlanta, GA

Swim Instructor, Assistant Coach

May 2024 – August 2025

- Delivered daily instruction and personalized feedback to 50+ swimmers ages 6-18, ensuring skill development and safety.
- Coached swim meets, led training trips, and managed organizational responsibilities like scheduling and equipment maintenance.
- Guided regional swim meets by adapting coaching strategies to diverse skill levels and improving team performance metrics.

Edinburgh Marlins Swim Team, Suwanee, GA

Swim Instructor, Assistant Head Coach

May 2023 – August 2023

- Provided focused supervision to 60+ children aged 4-18 during 8-hour shifts each day.
- Conducted swim lessons for groups of up to 8 kids, coached weekly team meets, and tailored instruction to individual needs.
- Trained and managed junior coaches while overseeing facilities and equipment to ensure smooth operations.
- Served as coach for multiple age groups at the Gwinnett County Championship Meet, strategizing lineups and providing real-time feedback to optimize performance.

PROJECTS

Community Transportation App | Team Project with Non-Profit, Peoplestown Atlanta

- Collaborated with a team of 4 to design a mobile application connecting residents with local community transportation services.
- Worked alongside a non-profit to identify community needs, ensuring accessibility, usability, and long-term sustainability.
- Incorporated user feedback into practical app features to reduce mobility barriers, strengthen local resource access, and improve user adoption rates.

Personal Fitness Tracker App | Personal Project

- Developed an iOS application using Swift and Xcode to aggregate and analyze health data from Apple Watch via HealthKit.
- Implemented features for tracking activity metrics, recovery insights, and performance trends with a strong focus on data privacy.
- Designed a user-friendly interface to enable seamless device synchronization and real-time health monitoring without external hardware dependencies.

Dual Meet Lineup Builder | Personal Project

- Built a web-based tool to generate optimal swim meet lineups using data scraped with Selenium and processed with pandas.
- Created assignment algorithms to maximize performance and strategic outcomes for individual and dual meets.
- Deployed a containerized Flask API with a responsive front end, supporting customizable configurations and multi-format exports.

Sovereign Debt Crisis Prediction System | Machine Learning Project

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- Built an ML-based early warning system predicting sovereign debt crises up to 3 years ahead using macroeconomic data from 68 countries (1961–2024).
- Engineered rolling-window features capturing economic trends and volatility; evaluated Random Forest, Gradient Boosting, and clustering methods.
- Identified high-risk economic patterns through unsupervised learning to support interpretable, policy-relevant insights.

SKILLS

Languages: Python, Java, JavaScript, HTML, C, Swift, SQL

Libraries/Frameworks: NumPy, React, Pandas, Matplotlib, Firebase, Flask

Tools: Stacks, GitHub, Agility, Jira, Android Studio, LaTeX, Microsoft Office Suite (Word, Excel, PowerPoint, Outlook)

Communication: Skilled at presenting to large groups and clients, in both technical and non-technical terms

LEADERSHIP

NCAA Division I Georgia Tech Swimming, Atlanta, GA

August 2023 – Current

Student-Athlete

- Coordinated meetings, recruiting efforts, and team activities with peers and coaches to foster group cohesion and support.
- Committed 20+ hours per week to training while balancing academic responsibilities, showcasing time management skills.
- Contributed to initiatives that boosted team morale and recruitment success, supporting competitive outcomes in Division I events.