Carter Tierney

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EDUCATION

Georgia State University *B.S. / M.S. in CS with Privacy/Security GPA 3.76*   Expected Spring 27
- **Honors/Leadership:** President of Barbell Club, Hackathon Winner, Graduate Assistantship (Top 15% of applicants)
- **Relevant Courses:** Sof Dev/Eng, ML, Algorithms/Data Structures, Database Systems, Data Science, Web/Mobile Dev

EXPERIENCE

Graduate Research//Teaching Assistant *Georgia State University*   **Dec 2025 - Present**
- Assisting lectures on Comp Org/Architecture, using problem-solving and supplemental instruction to assist students
- Mentoring students from diverse backgrounds, helping reduce barriers to success in technical coursework.

Full-Stack Developer *Freelance:* https://www.thepaulkclinic.com/   **Aug 2025 - Dec 2025**
- Designed website frontend using PHP/CSS, achieving **25%** surge in patient engagement//**25%** reduction in bounce rate
- Optimized backend with WordPress plugins, boosting performance by **60%** and cutting page load time from **4.2s to 1.7s**
- Analyzed user trends using Google Analytics, adhering to HIPAA compliance to support decision-making.

Software//Data Engineer Intern *Alpha Web Advisors*   **Oct 2024 - Aug 2025**
- Cleaned and validated data using Apache **Spark** to perform a large-scale migration of **20K+** real-estate records
- Migrated **500+** property records to PostgreSQL using AWS S3//Glue, achieving **zero** data loss
- Optimized SQL queries, boosting data accuracy from 92% to 99.8% and cutting query time **18x** (3.2s → 180ms)
- Architected web apps using React//Typescript, providing homeowner residential portals//HOA dashboard boards
- Visualized insights using PowerBI within Agile sprints, replacing Excel workflows and maintaining SDLC
- Deployed AWS Amplify//RDS deployment pipelines, increasing system uptime to 99.9% for **1300+** users

Technical Operations Intern *Ardent Residential*   **May 2022 - Aug 2022**
- Migrated 300+ HOA communities between management platforms, ensuring data accuracy and continuity of operations
- Standardized property and community records across new systems, improving data consistency and platform usability
- Verified end-to-end data integrity post-migration, ensuring 100% reliable access for managers and board members

Manager/Bartending Lead *Bartaco*   **Sep 2022 - Present**
- Ranked **#1** bartender across 30+ locations (350 employees) by increasing premium sales through targeted promotions.

TECHNICAL SKILLS

Languages: Python, Java, Go, JavaScript/TypeScript, SQL, PHP/HTML/CSS
Frameworks: FastAPI, ReactJS, NodeJS, Angular, ExpressJS, React Native, Spring Boot
Tools & Infrastructure: REST APIs, AWS, GCS, Docker, Kubernetes, Agile/Scrum, Git/Bash, CI/CD
Data & ML: LLM, PyTorch, Scikit-Learn, TensorFlow, PostgreSQL, NoSQL, Pandas, NumPy

PROJECTS

VoiceVitals: Dementia Detection, 1st Emory Hacks | *TypeScript/React, ML/DL, GCS/Firebase* **|** Devpost Link   **Nov 2025**
- Built FastAPI + PyTorch ML pipelines to analyze voice audio, increasing **~42%** in the accuracy of early dementia detection
- Researched latest tech papers from Boston Uni//NLM with datasets to engineer features//machine learning models
- Engineered a scalable doctor/patient dashboard web app with secure audio streaming for clinical trial data collection

UrSim: Fantasy Sport Lineup Optimizer | *Typescript/React, Monte Carlo, PuLP, Numpy, AWS***|** Github Link   **Nov 2025**
- Architected fantasy sports lineup optimization with quant mathematics simulations to deliver DraftKings DFS lineups
- Designed UI component library using TypeScript to reduce feature development time//maintain consistency
- Established algorithmic optimization from statistics for MLB/NFL/NBA fantasy sports lineups with **90%** efficiency

Real-Time E-commerce Analytics Platform | *NumPy, Pandas, Apache Spark/Kafka, ML, Big Data***|** Github Link   **Oct 2025**
- Containerized analytics platform processing e-commerce datasets, using clustering algorithms for customer segmentation
- Engineered pipelines with ML models, using insights to deliver AI decision pipelines providing personal recommendations
- Optimized fraud detection using numpy, pandas, and scikit-Learn: achieved **95%+** accuracy rating with **<2%** false positives