Carter Tierney

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EDUCATION

Georgia State University *M.S. Computer Science (Current) GPA 3.76 || B.S. Computer Science* **Expected Spring 27**
 Honors/Leadership: President of Barbell Club, Hackathon Winner, Graduate Assistantship Recipient
 Relevant Courses: Sof Dev/Eng, ML, Algorithms/Data Structures, Database Systems, Data Science, Web/Mobile Dev

EXPERIENCE

Graduate Research//Teaching Assistant *Georgia State University* **Jan 2026 - 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 *Local Chiropractic Clinic* **Aug 2025 - Dec 2025**
- Worked directly with clinic owner to redesign legacy website frontend/backend, achieving **6x** increase in homepage views
- Redesigned UI/UX patterns using PHP/CSS, followed HIPAA compliance, and delivered **15x** increase in conversions
- Implemented a modern, information-driven website flow that improved usability and boosted user engagement **60%**

Software//Data Engineer Intern *Alpha Web Advisors* **Oct 2024 - Aug 2025**
- Architected HOA dashboard/residential portal websites using React/Typescript, providing access to **1300+** users
- 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)
- Visualized insights using PowerBI within Agile sprints, replacing Excel workflows and following SDLC
- Deployed CI/CD pipelines with AWS Amplify, maintaining **99.9%** uptime across 12 communities

Technical Operations Intern *Ardent Residential* **May 2023 - Aug 2023**
- Migrated management platforms using Python scripts, ensuring data accuracy and operations for 300+ HOA's
- Standardized property records across new systems using SQL, improving data consistency and platform usability
- Verified end-to-end data integrity post-migration through proper testing, ensuring 100% reliable access for homeowners and board members

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript/TypeScript, SQL, PHP/HTML/CSS
Frameworks: ReactJS, Pandas, NumPy, NodeJS, FastAPI, Deep Learning, PyTorch, Scikit-Learn, TensorFlow
Tools & Infrastructure: Spark/Hadoop, MongoDB, Power BI, REST APIs, AWS, GCS, Docker, Agile/Scrum, Git/Bash, CI/CD

PROJECTS

VoiceVitals: Dementia Detection, 1st Emory Hacks | *TpeScript/React, ML/DL, GCS/Firebase* **|** Devpost Link **Nov 2025**
- Built FastAPI + PyTorch ML pipelines to analyze voice audio features, classifying audio clips for early dementia detection
- Optimized feature extraction using advanced analytics and ensemble models to raise predictive performance and robustness
- Deployed a scalable doctor/patient dashboard with data visualization and secure audio storage for clinical data collection
- Engineered 153 features using spectral, prosodic, and voice quality analysis to improve model sensitivity and precision

UrSim: Fantasy Sport Lineup Optimizer | *Typescript/React, BILP, ML, Python* **|** Github Link **Oct 2025**
- Built DFS lineup optimization using integer programming and genetic algorithms to generate DraftKings lineups
- Built real-time web and desktop apps using Node/React/Typescript, with interactive lineup generation, and CSV exports
- Optimized multi-entry strategies using quantitative risk modeling to increase cash rates in tournaments
- Ranked lineups in the top 0.01% using mathematically constrained optimization strategies

Paulk Clinic Website (Client Product) | *PHP/CSS/HTML, Deployment/Config, SEO* **|** thepaulkclinic.com **Nov 2025**
- Redesigned an outdated local clinic website architecture using PHP/HTML/CSS and SEO, achieving a **6x** increase in homepage views and a **15x** increase in overall website conversions
- Redesigned contact workflows using custom forms and UX patterns, achieving a **3.5x** increase in contact page views
- Optimized homepage design/UX using design concepts, resulting in a **6x** increase in user interactions and monthly traffic