

Carter Tierney

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EDUCATION

Georgia State University *B.S. / M.S. in CS 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 *Local Chiropractic Clinic*

Aug 2025 - Dec 2025

- Worked directly with clinic owner to redesign legacy website frontend/backend, achieving a **6x** increase in homepage views.
- Redesigned page layouts using PHP//CSS, followed client standards, and delivered a **15x** increase in website conversions
- Delivered a HIPAA-compliant website using modernized UI/UX patterns, raising user engagement by **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 maintaining 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, JavaScript/TypeScript, SQL, PHP/HTML/CSS

Frameworks: ReactJS, Pandas, NumPy, NodeJS, FastAPI, Deep Learning, PyTorch, Scikit-Learn, TensorFlow

Tools & Infrastructure: REST APIs, AWS, GCS, Docker, Agile/Scrum, Git/Bash, CI/CD, Postgresql, Supabase

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 and model pipeline using an ensemble model to raise predictive performance and robustness
- Deployed a scalable doctor/patient dashboard with secure audio storage for clinical trial 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