William Osborne

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EDUCATION

Clemson University, Clemson, SC | *Bachelor of Science in Computer Science, May 2025*

TECHNICAL SKILLS

- Languages: Python, C/C++, C#/.Net, SQL, Node.js, TypeScript, Dart, Go, Java, HTML/CSS, CUDA
- Frameworks & Tools: React, Electron, Svelte, Django, Keras, PyTorch, OpenAI/Langchain, Kubernetes, AWS
- Databases: PostgreSQL, MongoDB, MySQL, SQL Server
- Practices: Agile, Scrum, UI/UX Design, REST APIs

EXPERIENCE

Software Engineer Intern | *Tate Metalworks* | *May 2024 – Aug 2024*

- Designed backend infrastructure using Django ORM and PostgreSQL, reducing bid preparation time by 35% through automated Excel-to-database synchronization.
- Automated multi-tank bid estimation via web interface, decreasing turnaround time from 3 days to 30 minutes, improving customer responsiveness.
- Built an Excel-to-database interface, integrating legacy project workflows into SQL Server.
- Integrated Insightly CRM API, automating customer data population and eliminating redundant data entry.

Network Technician | *Clemson University* | *Aug 2023 – Present*

- Configured Cisco routers/switches, resolving network outages and reducing downtime across campus.
- Deployed and troubleshot over 300 wireless access points, ensuring 100% coverage campus-wide.
- Collaborated with IT helpdesk team to resolve 100+ connectivity and routing-related issues, enhancing campus IT reliability.

PROJECTS

Couch Cup – Full-Stack Websocket Application | *www.couchcup.tv*

- Developed a cross-platform, real-time group engagement application using Electron, React, Stripe, Python, WebSockets, and custom neural AI models.
- Implemented AI-driven content moderation and NLP enhancements, for real-time user engagement.

Machine Learning Research – Creative Inquiry | *Clemson University and Children's Hospital of Philadelphia*

- Developed machine-learning tools leveraging NLP, analyzing thousands of COVID-19 incident reports.
- Created a discrete optimization method for LLM prompt engineering, significantly improving categorization accuracy of qualitative data.

CUDA FDFT Electromagnetic Solver | *GPGPU Graduate Project*

- Engineered a high-performance electromagnetic field solver in C++ and CUDA, achieving precise simulations of dielectric materials through advanced lossy media correction techniques.
- Optimized computational efficiency, reducing simulation times by 50% while maintaining high fidelity in modeling wave propagation in lossy dielectric media.

EXTRACURRICULAR & LEADERSHIP

- Varsity Rowing Team Member (3 Years): Achieved 4 medals in national regattas (ACRA and HOTS); coordinated logistics for a team of 100, managing equipment transportation efficiently.
- Habitat for Humanity Team Leader: Successfully worked with different teams to complete 3 home builds, constructing tresses, grading for foundations, and tiling roofs.