

# William Osborne

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## EDUCATION

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**Clemson University**  
B.S. in Computer Science

*Graduating May 2025*

## PROJECTS

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- **Large-Language Model Research (Creative Inquiry)**
  - Developing machine-learning tools to analyze unstructured incident report data.
  - Worked with Children's Hospital of Philadelphia in analyzing thousands of records to learn how frontline staff coped with COVID-19 pandemic.
  - Developed tools that used perplexity to guide discrete optimization of prompts for LLM-driven open-ended categorization.
- **Full-Stack Websocket Development** [www.couchcup.tv](http://www.couchcup.tv)
  - Created Couch Cup, a cross-platform application designed for group engagement.
  - **Technologies:** Electron, React, Stripe for in-app purchases, Python, Webhooks, WebSockets, and AI-driven systems for text-to-image, and custom-trained neural text-to-speech models.
  - **AI Features:** Used natural language processing and generative AI to enhance user experiences and moderate content in real time.
  - **Functionality:** Enabled synchronization between host and mobile clients for a smooth user experience.

## SKILLS

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- Languages: Python, C/C++, SQL, Node.js/Typescript, Dart, Go, Java, Html/CSS, CUDA
- Frameworks: Keras, Tailwind, Numpy/Pandas, PyTorch, Microsoft .NET, Django, PostgreSQL, MongoDB, MySQL, React, Svelte, OpenAI/Langchain
- Skills: Agile, Scrum, UI/UX Design, Kubernetes, AWS, Power BI, REST APIs, Figma

## WORK EXPERIENCE

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### Tate Metalworks

*May 2024 – Aug 2024*

#### *Software Engineer Intern*

- Designed backend infrastructure using Django ORM and PostgreSQL, reducing bid preparation time by 35% through automated Excel-to-database syncing.
- Automated multi-tank bid estimation process via web interface, slashing turnaround time from 3 days to 30 minutes and syncing RFQs/API files to boost customer offers.
- Designed an interface for reading and writing data from macro-enabled Excel sheets to sync with the active bid database and generate material purchase quotes, reducing time spent by 35%.
- Integrated Insightly CRM API to auto-populate customer data into bid sheets, eliminating manual entry.

### Clemson

*Aug 2023 – Present*

#### *Network Technician*

- Configured Cisco routers/switches and resolved network issues, reducing client downtime campus-wide.
- Deployed and troubleshooted 100+ wireless access points to ensure 95% campus coverage.
- Collaborated with helpdesk to resolve 200+ tickets related to connectivity and firewall configurations.

## EXTRACURRICULAR & LEADERSHIP

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- Varsity Rowing Team (3 years): Secured 4 medals in ACRA and HOTS regattas; managed logistics for equipment transportation (team of 100).
- Habitat for Humanity: Led teams in building 3 homes, including electrical work and structural grading.