# Michael Vaden

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## Projects

### Djinn Code Generation CLI
github.com/SwampPear/djinn

- CLI for automatic code generation from natural language implemented in Rust
- implemented standardized natural language to compute instruction API with versatile prompt formatting

### Lexi
github.com/SwampPear/lexi

- library written in C++ for tokenization of strings using regular expressions
- intended for use in compilers or compression algorithms

### GACRC Portal
gacrc.uga.edu

- implemented web app with Django and Three.js that allowed researchers at the University of Georgia to manage their research groups and interface with Sapelo2
- provided much-needed automation for resource management in replacing series of bash scripts

### Personal Website
swamppear.xyz

- used WebGL for caustic ripple effects
- implemented creative CSS microinteractions and interactivity all served with Go Fiber

## Experience

### Delta Air Lines
September 2023 - Present

**Co-op, ACS Tools and Technology**

- used data-driven analysis skills to lead in the implementation and maintenance of technologies at Delta
- developed PowerBI dashboards for key data metric visualization
- implemented automation processes (Microsoft Power suite) and scripts (Python, SQL) for reocurring tasks

### University of Georgia
January 2022 - December 2022

**Software Development, Georgia Advanced Computing Resource Center**

- implemented web app so that researchers at the University of Georgia could manage their research groups and interface with the university's HPC cluster, Sapelo2, and assisted with IT-related operations at GACRC

### Black Dog Customs
May 2019 - May 2022

**Electronics Design / Manufacture**

- designed and implemented numerous electrical automotive products, such as transmission wiring harnesses
- assisted in the installation and maintenance of electrical components in dozens of vehicles

## Education

### Georgia Institute of Technology
January 2023 - Present

**B.S. Computer Science**

- **Concentration:** Intelligence and Systems Architecture
- **Coursework:** Computer Organization and Programming, Systems and Networks, Perception and Robotics Multivariable Calculus, Linear Algebra
- **Extracurricular:** Phi Gamma Delta Fraternity

### University of Georgia
August 2021 - December 2022

**B.S. Computer Science**

- **Coursework:** Differential Calculus, Data Structures and Algorithms, Discrete Math, Automata and Complexity
- **Extracurricular:** UGAHacks7, Girls Who Code

## Skills

**Languages:** Python, TypeScript/JavaScript, Java, C++, C, Rust, Go, Bash, SQL, HTML5, CSS3
**Libraries/Frameworks:** Django, Fiber, React.js, Next.js OpenCV, NumPy, Selenium, OpenGL, WebGL
**General:** UI, Git, Linux, Unix, Make, Microsoft Power Suite, Adobe Suite, Data Analysis, Data Visualization