Lloyd Alba

Texas 78665 | 512-992-8499 | lloyddalba@gmail.com | linkedin.com/in/lloydalba | lloydalba.dev

Education

Texas A&M University — College Station, TX
Bachelor of Science in Computer Engineering GPA: 3.5/4.0 — *Aug. 2023 – Dec. 2027*

Austin Community College — Austin, TX
Co-enrolled with Texas A&M through Texas A&M Engineering Academy GPA: 3.66/4.0 — *Aug. 2023 – May 2025*

Technical Skills

Languages: Python (3 years), C/C++ (6 months), JavaScript, HTML/CSS, Bash, Powershell
Developer Tools: Git, Azure, Azure DevOps, Docker, GitHub, Terminal/Command Prompt, Jira

Experience

Game Engine Developer — Dec. 2024 – Present
Anvil Studio — *Remote, TX*

- Head of development for engine render compatibility on MacOS platform using **Metal-cpp API** and **Metal Shading Language**.
- Leading implementation of an **Entity Component System** in **C++**, utilizing polymorphism to overcome inheritance limitations and enhance engine flexibility.
- Building an internal CLI tool in **Python** with argparse, streamlining developer onboarding and game engine configuration.

Software Engineer Intern - Platform Engineering — Jun. 2024 – Aug. 2024
Arrive Logistics — *Austin, TX*

- Migrated Azure DevOps GUI pipelines to **YAML-based pipelines-as-code**, improving code maintainability, scalability, and deployment efficiency.
- Guided two interns in pipeline debugging, demonstrating **leadership** and improving team productivity.
- Utilized Azure monitoring tools to maintain application uptime and resolve deployment failures, increasing system reliability by **15%**.

Software Engineer Intern - Platform Engineering — Jun. 2023 – Aug. 2023
Arrive Logistics — *Austin, TX*

- Developed an Internal CLI Tool feature that reduced engineer workload by **1-2 developer days** per sprint and significantly improving development efficiency.
- Achieved a **14%** reduction in development time resulting in **$38,400** annual savings in engineer salary costs.
- Streamlined project scaffolding by **automating** version control, template app creation, and **CI/CD pipelines.**
- Delivered a high-impact presentation on the project to **80+** Arrive Logistics engineers and the Code2College board of directors, demonstrating strong communication skills.

Projects

EEG Combat Cognition | *Python, Plotly-Dash, Pandas*

- Personal research project exploring brain activity of human mind in a combat situation.
- Implementing real-time EEG Electrode **Data Visualization and Modeling** using Plotly-Dash.

Black-Scholes Model Option Pricing Calculator | *C++, Crow, SvelteKit, Docker*

- Developed **C++ REST-API** for Black-Scholes Model calculation.
- SvelteKit frontend and routing.
- **Containerized** REST-API with **Docker** and deployed frontend application using Vercel.

Activities

The Cherno C++ Series | *YouTube Series*

- In-depth learning about C++ topics such as smart pointers, C++ specific OOP, and Data-Oriented Design.
- Understanding importance of memory management and designing performance critical code.

Abdul Bari Data Structures and Algorithms | *Udemy Course*

- Learning Data Structures and Algorithms through lecture videos and implementation exercises.
- Creating my own C++ library of data structures learned in the course and optimizing them as an exercise.