Dylan Brose

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EDUCATION

University of Texas at Dallas — Richardson, TX
Bachelor of Science in Software Engineering — *May 2027*

EXPERIENCE

Software Developer — August 2024 – Present
Comet Robotics — *Richardson, TX*
- Assisted a team in building a campus-wide club management system allowing 50+ officers and project managers to better manage member dues, attendance, reservations, and user statistics
- Designed a Server-Side rendered portal for officers using PostgreSQL and Django to reduce time spent on operational tasks by 65%
- Optimized HTML and CSS to create an intuitive and responsive user interface used by more than 300 members

Project Manager — August 2023 – Present
Comet Robotics — *Richardson, TX*
- Coordinated a team of 15+ members to collaboratively develop a full-stack software infrastructure that communicated with 30+ wireless embedded systems using C++ in the Arduino framework
- Implemented a Node.JS backend that served a Vite+React webpage capable of supporting over 50 clients to participate in a real-time game event
- Laid the project foundation, designed the tech stack, and delegated tasks effectively which led to an increase of productivity by 400% over the course of 18 months
- Launched an introductory course to drastically decrease onboarding time of new members and increase documentation initiatives

PROJECTS

CodebugGame Engine | *Java, OpenGL, GLSL, Rust, Git* — October 2024 – Present
- Developed a game engine in Java from the ground up to support rendering over 1 million assets with OpenGL and GLSL
- Collaborated with a team to integrate a custom Rust compiler into the engine, allowing users to execute custom scripts to define in-game creature behaviors

RoboSCAD | *Java, Git* — January 2024
- Constructed a design infrastructure for 3D Modeling combat robots which utilized my custom Java UI and manual 3D graphics calculations for displaying 3D models

1lb Plastic Combat Robot | *SolidWorks, 3D Printing* — September 2023
- Iterated, constructed, and controlled a combat robot that went undefeated against over 80 competitors among 5 competitions
- Showcased mastery of planning, implementation, Solidworks, and 3D Printing

MOGOS | *Lua, Git* — December 2022
- Modified a Lua terminal based computer operating system to be graphically interfaced
- Custom-made solutions include in-software asset creation, efficient image compression, and a full-suite graphics api
- Distributed among an in-game user base consisting of more than 200 weekly users

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript/Typescript, HTML/CSS, GLSL
Frameworks: React, Node.js, PlatformIO, Django, OpenGL, MongoDB, Arduino
Developer Tools: Git, Docker, VS Code, Visual Studio, IntelliJ, Android Studio

INTERESTS

Video Games: Minecraft, Stellaris
Hobbies: Anime, Fiction Reading, Programming
Music: Metal/Rock, JPop