Andrew Bilsborough

SOFTWARE ENGINEER

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Education

LAKELAND UNIVERSITY

B.S. Computer Science, 2017—2022

Economics Minor, 3.48 GPA

Employment History

BADGER TECHNOLOGY GROUP

Software Engineering Intern May 2023 – August 2023 **Software Engineer** August 2023 – Present

Badger Technology Group, Inc. is a US-based Systems Engineering and Hardware/Software development company and was established with a focus on providing unique systems integration capabilities and solutions drawing on expert software, hardware and systems engineers from leading technology and aerospace companies and the US military (https://badgertg.com/about).

- Created AS9100-compliant software archival solution.
- Implemented customer requirements for prototype Primary Flight and 3-ATI Displays.
- Documented pre-existing internal processes.
- Designed and documented an internal development and testing asset (server rack).

Volunteering

REVITALIZE MILWAUKEE

Technical Consultant August 2020 – Present

Revitalize Milwaukee is a 501(c)3 nonprofit organization whose goal is to reduce social, economic, and environmental disparities by providing free home repairs throughout Milwaukee and Waukesha counties (https://www.freehomerepairs.org/our-mission).

- Partnered with management to optimize and maintain planning software.
- Applied database design principles to optimize software setup and operations.
- Created and maintained dashboards to enable management to assign and track tasks and project completion.
- Monitored data quality to eliminate duplicate data.
- Troubleshot and resolved software and data issues.

Technical Skills

Programming Languages C++, C#, Haskell, Java, PowerShell, Python, Rust, SQL

Frameworks & Libraries OpenGL 2.0 SC, ZMQ
Tools CMake, Git, GitHub, Inkscape, Power Automate, Visual Studio,

Visual Studio Code

Projects

2013 First Robotics Competition | C++, Eclipse

2012 - 2013

Cedarburg High School

Lead programmer for the CHS robotics team. Implemented the majority of the design requirements, tested the produced robot, and managed robot code performance during the competition.

Note Taking Mobile Application | Java, Android Studio

2022

Lakeland University

Developed as part of a mobile applications development class. Focus was on creating a minimal viable product with a consistent visual style and clean code base.

○ Lindelt/java-either | Java

2022

2023

Personal Project

An error-handling monadic type implemented in Java SE8, comparable to Haskell's Either or Rust's Result.

Primary Flight Display Prototpye | C++, CMake, OpenGL SC 2.0, Visual Studio Badger Technology Group

A primary flight display prototype for the Calidus B-250 utilizing ZMQ to receive flight data and OpenGL to draw the display elements.

3-ATI Display Prototpye | C++, CMake, OpenGL SC 2.0, Visual Studio

2023

Badger Technology Group

A fork of the primary flight display prototype modified for use on a 400×400 3-ATI standby display.

References

Lynnea Katz-Petted

Chief Executive Officer

Revitalize Milwaukee

■ lynnea@rtmilwaukee.org

Daniel Wade

President & Founder Badger Technology Group

 ■ d.wade@badgertg.com