

# Daniel Blanchard

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## Education

**Brigham Young University** | Provo, UT

Expected Graduation December 2023

- B.S Computer Science, Minor in Manufacturing Engineering
- GPA: 3.81

## Experience

**L3Harris Technologies**

**Salt Lake City, UT**

*Software Engineering Intern*

*May 2022-Present*

- Improved speed of IBIT test by 400% by redesigning an algorithm to wait for a signal in increments
- Resolved 10+ major defects for interim software release of an embedded system in C++
- Wrote 50+ unit tests to ensure adherence to customer software requirements using internal hardware interfaces

**CG Industrial Specialties, Ltd.**

**Provo, UT**

*Software Developer Intern*

*Aug 2021-May 2022*

- Headed creation of WPF desktop app to simulate and visualize autoclave data using C# and PID control loops
- Reduced control loop memory usage by more than 500% by implementing a data cache for necessary matrix data
- Improved application UI performance by offloading several computational tasks to different threads

**Micron Technology Inc.**

**Boise, ID**

*Metrology Equipment Engineer Intern*

*May 2021-Aug 2021*

- Discovered use case for predictive analytics by correlating tool failure with tool sensor data using python
- Developed script to parse and visualize tool sensor data at times of process failure using NumPy and Pandas
- Created mixed reality SOP for the HoloLens 2 that resulted in 50% reduction in training cost for a tool change

**BYU College of Engineering**

**Provo, UT**

*Research Assistant*

*Jan 2020-May 2022*

- Created a 2D thermal model in MATLAB capable of predicting interface temperature in a friction weld
- Developed application to calculate the volume of extruded material reducing a 5-hour task to 5 minutes

**BYU College of Engineering**

**Provo, UT**

*Head Teaching Assistant*

*Aug 2019-May 2022*

- Coordinated creation of online curriculum for lab work to accommodate remote instruction during the pandemic
- Trained 20+ new hires, led TA meetings, and instructed labs of 15+ students in industrial automation topics

## Skills

- Languages: C++, C#, Java, JavaScript, HTML/CSS,
- Technologies: GIT, VUE, Node.js, WPF, XML, XAML, Unix, SQLite, MongoDB, Android, Jira
- Other: Fluent Spanish

## Projects and Activities

**Autoclave Simulation Software** (C#, WPF, XAML, Simulink)

- Windows desktop application that dynamically visualizes chemical and physical reactions in a mining autoclave

**Family Tree Map Client and Server** (Java, XML, SQLite, Android)

- Android app with user authentication that displays user family tree data on Google Maps

**Shopping List Web App** (JavaScript, Vue.js, MongoDB, Node.js, HTML/CSS)

- Vue web app that stores user recipes and ingredients and creates a shopping list from selected recipe data

**YHack Hackathon** – (JavaScript, Vue.js, MongoDB, Node.js, HTML/CSS)

- Won award for the most creative project – web app game where users guess the connection between two items

**Irregular Area Calculator** (PyCharm, Python, Tkinter)

- Created application to calculate volume of extruded material during rotary welds from the tube cross-sections

## Leadership

**Events Officer** – ACM BYU

*April 2022-Present*

- Organized and planned club events focused on helping CS students network with professionals

**Student Relations Committee Member** – SME

*Jan 2022 - Present*

- 1 of 3 students in the country recruited to a committee that improves professional and student chapter relations

**Chair-Elect** – SME BYU Student Chapter

*Aug 2020 – April 2022*

- Increased recruitment by ~200% winning SME award for recruiting the most members for a student chapter