

Emma Johnson

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Education

US Citizen

Bachelor of Science in Software Engineering – Embedded Systems Minor: Business Analytics

Brigham Young University – Idaho

Projects

- **System Verilog:** Wrote a handbook for System Verilog for the students at the university to use.
- **Java:** Designed a text-based adventure that has many random encounter generators.
- **Embedded C:** Built a functional Tamagotchi Virtual Pet from scratch.
- **Google API Query Language:** Created a UI in Google Sheets to query data stored across many pages.
- **C#:** Modified Snake source code to make a 2-player Tron game.
- **Markdown:** Created a data structures tutorial for beginner programmers.
- **IEEE:** Led a team to build a Turret from the Portal 2 video game.
- **REACT:** Built a webapp containing multiple pages.
- **C language:** Led a team to build a ‘pet’ that is interactive.
- **Logisim Evolution:** Designed a 4-bit processor.
- **Power BI:** Created 10 separate dashboards and slides showcasing business strategy recommendations.

Experience

Teaching Assistant for Foundations of Digital Systems

Rexburg, ID

Brigham Young University – Idaho

Apr 2022 – Present

- Tutored students individually to reinforce concepts such as timing, gate operations, circuit analysis, and implementing System Verilog.
- Lead hands-on lab sessions for students in place of the course instructor.
- Developed weekly lab notes to assist with student understanding in lab sessions.
- Assisted with hardware debugging.

Online Learning Course Editor

Rexburg, ID

Brigham Young University – Idaho

Apr 2022 – Sept 2022

- Reviewed and edited content for over 10 worldwide classes.
- Wrote textbooks based on PowerPoint presentations.
- Updated and maintained the official website for the department.
- Created a database for the office with over 40 employees and course designer entries to increase communication efficiency between departments.

Skills

Software

- C#
- Python
- HTML, CSS, JavaScript
- SQL
- Java

Business Analytics

- Power BI
- Tableau
- R
- Google Sheets
- Presentation Preparedness

Hardware

- SystemVerilog
- ARM Assembly Language
- C Language
- Logisim Evolution
- FPGA Experience
- Team Leadership