Josh Bedwell

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Education

Bachelor of Science in Computer Science
Emphasis in Software Engineering
Brigham Young University, Provo, UT

Major GPA: 3.47
Aug 2016 - Apr 2023

Associate of Science
Utah Valley University, Orem, UT

GPA: 3.42
Aug 2021- Apr 2022

Experience

Research Assistant
BYU Social Technology and Privacy Lab

Apr 2021 - May 2023
Provo, Utah

- Collaborated with teams on several projects within an interdisciplinary research lab
- Designed and applied open coding schemas to characterize and gain insights into participant data
- Applied natural language processing techniques to conduct sentiment analysis on participant data
- Developed educational curriculum targeting neurodivergent social platform users
- Lead the design and implementation of neurodiverse friendly social platform prototypes
- Designed and implemented lab website using django
- Co-author of two published papers

Capstone Experience
Partners Personnel

Aug 2022 - Apr 2023
Provo, Utah

- Spearheaded the complete lifecycle of a modern web app, replacing an outdated MS Access program, from design and implementation to successful deployment
- Integrated Django with MS Active Directory authentication and multiple database backends
- Created a robust unit testing framework
- Shipped fully tested product to company specification on schedule
- Leveraged GitHub CI/CD to enhance the reliability and quality of the project
- Collaborated within a Scrum Agile development framework

Research Assistant
BYU Chemical Engineering

Dec 2020 - Aug 2021
Provo, Utah

- Overhauled and optimized sootlib, a C++ combustion simulation library
- Introduced automated testing using Google Test
- Improved library accuracy by implementing const correctness and a straightforward API
- Designed and implemented a behavior based polymorphic architecture, enhancing the flexibility and modularity of the library
- Played a key role in the completion and publication of library, included as co-author

Teaching Assistant
BYU Computer Science & Chemical Engineering

Jan 2019 - Dec 2020
Provo, Utah

- Instructed students on diverse programming concepts in BYU courses, including:
- CS 142, Introduction to Computer Programming
- CS 235, Data Structures and Algorithms
- CS 236, Discrete Structures
- CH EN 263, Computational Tools for Chemical Engineers

Publications

Mondal, Mainack., et al. "SootLib: A soot model library for combustion simulation." *SoftwareX*, vol. 22, 25 Mar. 2023, https://doi.org/10.1016/j.softx.2023.101375.

Stephens, Victoria B., et al. "A Tale of Two Cultures: Comparing Interpersonal Information Disclosure Norms on Twitter." *Proceedings of the ACM on Human-Computer Interaction*, vol. 7, no. CSCW2, Oct. 2023, https://doi.org/10.1145/3610045.

Skills

C, C++, CMake, Google Test	Java, Maven, Gradle, Junit, Android
Python, Django, Flask, Unittest, DRF	Swift, SwiftUI
PostgreSQL, DynamoDB, Neo4J, MongoDB	AWS Lambda, API Gateway, EC2
ML, PyTorch, SKLearn	Git, Github (Actions), Jenkins