# **Koby Lewis**

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#### **Education**

- Brigham Young University, PhD and MS of Computer Science, Anticipated Graduation Apr 2028
- Brigham Young University, BS of Computer Science, Graduated Apr 2023
  - Valedictorian, Summa Cum Laude, GPA 4.0
  - Software Engineering Emphasis
  - Linguistics Minor

### **Work Experience**

- Awardco, Apr 2022 Aug 2024
  - o Backend Software Engineer, Dec 2022 Aug 2024
    - Accelerated database update speed by over 200x across the platform
    - Architected and built Queue and Delta based user update system
    - Decoupled build and development process from relying on a single IDE
  - Backend Software Engineering Intern, Apr 2022 Dec 2022
    - Expanded flexible system for copying client settings
    - Implemented roles and permissions system
- Lucid Software, May 2021 Aug 2021
  - Software Engineering Intern
    - Developed pages for onboarding surveys to drive engagement and virality
- Brigham Young University Center for Teaching and Learning, Fall 2019 Apr 2021 and Aug 2021 – Apr 2022
  - Web Developer, Mar 2020 Apr 2021 and Aug 2021 Apr 2022
    - Implemented various pages for the University LMS (Learning Management System)
    - Created online discussion forum that allowed users to record and post videos of themselves
    - Heavily refactored and extended exam proctoring system
  - Quality Assurance Fall 2019 Mar 2020
    - Thoroughly searched for, found, and reported bugs in the University LMS

#### Skills

• Programming Languages/Frameworks: JavaScript/TypeScript, C#, Vue, Angular, Tailwind, HTML, CSS, Java, Scala, C/C++, Python, PHP, SQL, GLSL, HLSL, CUDA

• Technologies: AWS, Azure, Git, Bash, SQL Server, Unity

### **Honors and Awards**

- Brigham Young University
  - o Valedictorian, Summa Cum Laude
  - Full Ride Academic Scholarship
  - o Dean's List every semester College of Physical and Mathematical Sciences
- Awardco
  - Product Hackathon 2023 Winner
  - o Platform Hackathon 2023 Winner
- "Outstanding Engineering" Award Lucid Hackathon 2021

#### **Certifications**

• Language Certificate - Spanish Fluent - Brigham Young University

## **Projects**

- App for communication and coordination during disasters
- Framework for quickly prototyping card and board games online (TypeScript, Vue, Express)
- Chrome extension for navigating the web with only a keyboard (JavaScript)
- Biological evolution simulator (C++, OpenGL, Neural Networks, Model-View-Presenter, Multithreading, Time Travel)
- Discord bot for managing 2000 person server (TypeScript)
- Roguelike chess-based video game (C#, Unity)
- Randomized phonemic inventory generator for constructed languages (Java)
- Multiplayer online card games (Vue, JavaScript, Express)

#### Volunteer Work

- BYU Computer Science Discord Server, Dec 2021 Apr 2023
  - Head Administrator
    - Continued to increase popularity after the graduation of the founders of the group
    - Planned and coordinated in person social meetups
    - The only organization not officially tied to the university to be included during a club rush event
- The Church of Jesus Christ of Latter-day Saints, Aug 2017 Jul 2019
  - Volunteer Missionary
    - Taught immigrants English and life skills
    - Converted public data into effective techniques for finding people to help

## **Publications and Presentations**

- Development of a Mutable Meme Model in the Context of a Contagion Spread Simulation IEEE CCTA 2023
- *The Hero's Journey and the Plan of Salvation* Brigham Young University Religious Education Symposium 2019