Hayden Peterson

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EDUCATION

Brigham Young University — Expected Graduation Date: Apr 2027
Bachelor of Science: Computer Science — Provo, UT
Minor in Entrepreneurship
- GPA 3.71.
- Dean's List Fall 2024.

PROJECTS

AI PDF Research Assistant — Aug 2024
Project Lead
- Designed and built an AI-powered research assistant in Python, capable of parsing and analyzing over 5,000 academic PDFs to automate information retrieval and summarization for research purposes.
- Optimized PDF retrieval system through prompt engineering, increasing research efficiency for PhD students by enabling faster and more accurate access to relevant research content.

Chess Application (Full-Stack Java Project) — Apr 2025
Developer
- Developed a scalable multiplayer chess application in Java with a client/server architecture, supporting over 100 concurrent games through HTTP and WebSocket networking, applying object-oriented principles and test-driven development to ensure reliable backend performance.
- Implemented user authentication, matchmaking, and persistent game state storage using a MySQL relational database, ensuring secure data handling and reliable session recovery.

EXPERIENCE

BYU Studies — Oct 2024-Present
Audio Engineer — Provo, UT
- Edited audio versions of scholarly articles to improve accessibility and applied audio engineering techniques (equalization, compression, and limiting) to enhance clarity and listening quality.
- Collaborated with editors and production staff to ensure audio publications met professional standards and publication deadlines.

University of Oregon Lundquist College of Business — Jun 2024-Aug 2024
Research Assistant — Eugene, OR
- Developed Python-based data retrieval and modeling tools, integrating the OpenAI API to help PhD students quickly access and analyze research from the top five accounting journals.
- Analyzed business analyst questions by applying text embeddings to quarterly earnings call transcripts, measuring similarity across conference calls to identify recurring themes and patterns in analyst inquiries.

VOLUNTEER EXPERIENCE

The Church of Jesus Christ of Latter-Day Saints — Jun 2022-Jun 2024
Volunteer Missionary — Toronto, Canada
- Served full-time for 2 years as a volunteer, mentoring individuals from 50+ countries through structured service and education initiatives requiring cross-cultural communication.
- Led a multi-national volunteer team of 12+, organizing schedules and logistics across multiple areas while improving operational efficiency and developing strong leadership, planning, and collaboration skills.

SKILLS

- Software Engineering Skills: Python, Java, SQL, MySQL, Git/GitHub, AWS, Backend Development, API Integration, Relational Database Design, Test-Driven Development, Object-Oriented Design
- AI & Data Tools: Scikit-learn, Prompt Engineering, Data Retrieval & Modeling
- Professional Skills: Cross-Cultural Communication, Team Leadership, Technical Communication
- Entrepreneurial Experience: Founded and manage a DJ company, coordinating music for weddings, parties, and university functions.