Jacob Hopkins

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EDUCATION

University of Utah   Salt Lake City, UT
Bachelor and Master of Science in Computer Science (BS/MS Program) - 3.96 GPA   *Aug. 2020 – Current*

Bingham Highschool   South Jordan, UT
3.99 GPA   *Aug. 2017 – May 2020*

EXPERIENCE

Software Engineer Intern   2025 – Present
Pluralsight   *Draper, UT*
- As a Result of an after-action report, I designed and deployed a fallback mechanism using internal user team APIs to automatically recover missing user data, improving system resilience and preventing recurrence of similar issues.
- Proactively identified and resolved security vulnerabilities by monitoring for issues, applying guideline-compliant fixes, testing thoroughly and redeploying updates.

Software Engineer Intern   2024 – 2025
Energy and Geoscience Institute at University of Utah   *Salt Lake City, UT*
- Collaborated with Geologists and Civil Engineers to design and develop custom software solutions tailored to industry needs.
- Led the design and development of a cutting-edge CO_2 absorption calculation tool, streamlining environmental impact assessments for Geologists.

Teaching Assistant   2024
University of Utah   *Salt Lake City, UT*
- Held office hours for additional student support, addressing questions on course material, assignments, and exam preparation.
- Worked closely with the course instructor and other TAs to coordinate teaching efforts and share best practices.

PROJECTS

Sourcerer - Capstone | *Flutter, Python, AWS (EC2, RDS, S3, Amplify), MySQL*   2024 - 2025
- Worked as a full-stack developer on a team to build a machine learning-powered online source generator
- Designed and developed a cross-platform application using Flutter, deployed on web, iOS, and Android, ensuring a consistent and seamless user experience across devices.
- Built a scalable Flask backend integrated with a MySQL database, enabling secure and efficient data storage and retrieval. Deployed on an EC2 Instance.

University LMS | *C#, MySQL, ASP.NET*   2024
- Designed a learning management system in C# that allowed users to make, manage and administer classes and grades backed by a MySQL database. Used ASP.NET for backend design.
- Employed the Model-View-Controller (MVC) architecture to separate concerns, enhancing maintainability and scalability of the application.

Pooled Memory Allocator | *C*   2023
- Developed a custom Memory Allocator in C using explicit and implicit free list strategies, achieving an increase in memory allocation efficiency by processing requests 30% faster than traditional methods within the project scope.
- Implemented a suite of functional tests and stress tests to validate behavior under high load.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, SQL, MySQL, JavaScript, Kotlin, Flutter/Dart, x86 assembly, Django
Developer Tools: Git, Docker, AWS, Android Studio, XCode, linux
Other Skills: Communication, Collaboration and Teamwork, Time Management, Self-Motivation and Eager to Learn

COURSE WORK

Classes: Computer Systems, Algorithms, Data structures, Databases, Digital System Design, Web Development, Mobile App Development (Android), Computer Graphics, Programming languages, Software Practices I & II, Engineering Probability and Statistics, Computer Organization, Scientific Computing