Stephen Ristow

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Technical Skills

Programming Languages: Python, Java, SQL, LaTeX, MATLAB, JavaScript, Bash

Web Development: Django, Flask, HTML/CSS

Database Management: MySQL, PostgreSQL

Tools & Platforms: Git, REDCap, IntelliJ IDEA, Power BI

Operating Systems: Windows, Mac OS X, Linux

Education

Master of Science, Computer Science, Computing Systems Specialization
Georgia Institute of Technology *Aug. 2024 – Aug. 2026*
Relevant Courses: Database Systems Concepts & Designs, Software Development Process

Bachelor of Science, Honours Physics *University of British Columbia* *Dec. 2015 – May 2018*

Projects

'Pawsse – Social Medial Platform for Dogs'

- Developed a full-stack web application utilizing Django and MySQL to enable dog owners to create profiles for their pets, connect with others, and view an activity feed
- Designed and implemented raw SQL queries for complex backend operations, bypassing Django's ORM for efficiency.
- Integrated secure user authentication and role-based access control for seamless user experiences.
- Applied responsive design principles with CSS for cross-platform usability
- Containerized the application using Docker and deployed locally via Kubernetes (Kind) to simulate scalable service architecture

'Gymothy – Dynamic Exercise Logging Web Application'

- Developed a dynamic web application utilizing Django and Bootstrap for seamless, responsive back-end to front-end integration
- Employed Git version control and database management skills to effectively manage project
- Troubleshooted authentication processes, and validated user input to fortify user experience
- Deepened understanding of web application architecture, scalability considerations, and software engineering best practices

'Analyzing Success Factors in Kickstarter Projects'

- Identified key success factors of Kickstarter projects and provided actionable recommendations
- Utilized Python for data extraction, cleaning and processing, data analysis and visualization
- Designed an engaging presentation to effectively communicate insights to a non-technical audience in a comprehensible manner

Experience

Research Project Assistant *Provincial Health Services Authority* *Feb. 2021 – Present*

- Collaborate with cross-disciplinary teams to implement data capture solutions and optimize data entry processes for quality improvement initiatives
- Increase participant engagement by developing effective communication materials, resulting in a 29% uplift in engagement
- Create data visualization reports using REDCap, Microsoft Excel, and Power BI for internal communication and knowledge translation
- Analyze reports to extract actionable insights and present findings to diverse teams
- Manage submission processes for multiple initiatives by developing detailed and standardized documentation
- Train and lead teams of student volunteers to maximize data collection and entry efficiency

Research Assistant *University of British Columbia* *Dec. 2018 – Dec. 2020*

- Worked on advanced imaging research projects, focusing on developing innovative data analysis techniques to improve characterization of complex phenomena
- Utilized shell scripting to transfer data, run analysis pipelines, perform data entry, and clean datasets for two major projects involving 150 participants
- Supported additional research projects by effectively managing competing priorities and ensuring timely data processing
- Increased participant retention by over 70% during a critical period by proactively following up and maintaining accurate contact records

Relevant Coursework Projects

'Software Development Processes Course Project – Job Comparison App'

- Developed an Android app in Java using Android Studio, allowing users to add job details and compare job offers based on weighted attributes.
- Worked in an agile, week-long sprint format with a collaborative team, utilizing Git version control for efficient project management.
- Implemented algorithms for job comparison, focusing on user-friendly features and smooth UI/UX.
- Successfully balanced a demanding project schedule within a tight timeframe amid competing coursework, demonstrating strong time management and prioritization skills.

'Database Systems Concepts & Designs Coursework Project: Full-Stack Vehicle Sales Website'

- Developed a responsive full-stack website using Django and embedded raw MySQL queries (bypassing the built-in ORM) to manage vehicle sales data efficiently.
- Designed and implemented role-based user authentication, enabling differentiated access for staff (inventory clerks, salespersons, and owners) and public users, thereby streamlining operations and enhancing security.
- Engineered a dynamic interface that allowed inventory management and sales functionalities, ensuring a seamless user experience for both internal staff and customers.
- Demonstrated proficiency in back-end and front-end integration, optimizing performance under competing project deadlines through effective time management and prioritization.