

Stephen Ristow

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Technical Skills

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

Data Analysis & Visualization: Power BI, Excel, REDCap, Python (Pandas, Matplotlib)

Web Development: Django, Flask, HTML/CSS

Database Management: MySQL, PostgreSQL

Tools & Platforms: Git, IntelliJ IDEA, Jupyter Notebooks

Operating Systems: Windows, Mac OS X, Linux

Education

Master of Science, Computer Science, Computing Systems Specialization

Georgia Institute of Technology

Aug. 2024 – Present

Relevant Courses: Database Systems Concepts & Designs, Human-Computer Interaction, Software Development Process

Bachelor of Science, Honours Physics *University of British Columbia*

Dec. 2015 – May 2018

Experience

Research Project Assistant *Provincial Health Services Authority*

Feb. 2021 – Present

- Designed, implemented, and maintained data capture solutions and automated data processing workflows for large-scale research and quality improvement initiatives.
- Analyzed and visualized complex data using Power BI, Excel, and REDCap to produce actionable insights for cross-functional teams, supporting decision-making and process optimization.
- Developed reports and dashboards for internal stakeholders, ensuring data accuracy and timeliness in delivering key performance indicators (KPIs) and research findings.
- Trained and led student teams in data collection and data entry processes, ensuring consistency and efficiency in data management across multiple research projects.
- Managed project documentation, developing clear guidelines for process improvements and reporting, ensuring standardization and accuracy.

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

Projects

'PawsPort – Social Media Platform for Dogs'

- Developed and deployed a full-stack social media web app using Django, embedded MySQL, and Railway with Docker-based containerization.
- Implemented secure user authentication, SQL-based data management, and responsive CSS styling for cross-device usability.
- Publicly available [here](#).

'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

Relevant Coursework Projects

'Human-Computer Interaction Project: Redesign of Spotify's Now Playing Audio Scrubber'

- Leveraged quantitative and qualitative user feedback during needfinding and evaluation phases to identify usability challenges with Spotify's Now Playing screen audio scrubber.
- Developed low- to high-fidelity prototypes addressing user pain points, and iterated through multiple design cycles, resulting in a user interface that significantly improved satisfaction.
- Employed rigorous statistical analysis on survey and usability session results to inform design decisions and validate enhancements, showcasing a 50% reduction in time to scrub audio to desired times.
- 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.

Certifications & Additional Skills

- **Advanced Excel:** Data manipulation, pivot tables, VLOOKUP, and automation using macros.
- **SQL:** Query writing for data extraction, reporting, and analysis.
- **Data Visualization:** Proficiency in Power BI and Google Sheets for creating impactful visual reports and dashboards.
- **Statistical Analysis:** Experience with regression analysis and data-driven modeling techniques.