Elizabeth Christman

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EDUCATION

M.S. Computer Science Expected May 2023
Virginia Tech, Blacksburg, Virginia
Relevant Coursework: Advanced Machine Learning, Data Analytics, Information Visualization

B.S. Computer Science, *Cum Laude* May 2021
Texas A&M University, College Station, Texas

SKILLS

Programming Languages: Python (proficient), C++ (proficient), Java (intermediate), JavaScript (intermediate), R
Frameworks and Libraries: scikit-learn, pandas, matplotlib, NumPy, PyTorch, d3.js, React
Software: Git, Jupyter Notebooks, Unix, RStudio, Tableau, Agile (Scrum)

RELATED EXPERIENCE

Software Engineering Intern, Splunk, Blacksburg, Virginia (remote) Summer 2022
- Implemented Python scripts to automate Windows build of Splunk App for Stream, an add-on that allows the user to capture and analyze streams of network event data, reducing build time by more than 90%.
- Collaborated with another intern to deliver on project design, implementation, testing, and documentation
- Took part in team sprints and completed story points through participation in an Agile development environment

Software Engineering Intern, JP Morgan Chase & Co, Houston, Texas (remote) Summer 2021
- Developed automation scripts in Python and Groovy for internal company Jira instances to reduce time needed to bulk update project configurations by 50%
- Updated logging features of existing Java applications to improve development and debugging experience by enabling more efficient discovery of bugs

Software Engineering Intern, JP Morgan Chase & Co, Houston, Texas (remote) Summer 2020
- Designed and built a full-stack web application in 5 weeks for Interfaith Ministries for Greater Houston for managing data related to their refugee mentorship program, eliminating the need to manage multiple documents and spreadsheets
- Integrated React front-end interface with a Python back-end that utilized REST API endpoints
- Communicated with a team of 6 interns to successfully deliver on application components in a virtual environment

Software Engineering Intern, Fidelity Investments, Westlake, Texas Summer 2019
- Investigated and developed a Java solution for a bug in the internal file archive process in order to prevent program crashes when uploading file types that were no longer supported.
- Updated hundreds of lines of PL/SQL code to meet compliance policies for future company-wide Oracle upgrade

PROJECTS

A Comparative Overview of Dimension Reduction Methods *https://tinyurl.com/overview-mds* Fall 2021
- Interactive ObservableHQ notebook written in JavaScript and d3.js providing an overview and comparison of PCA, MDS, and t-SNE methods of dimension reduction.

OTHER EXPERIENCE

Graduate Research Assistant, Virginia Tech, Blacksburg, Virginia Spring 2022, Spring 2023
- Designed and developed **2D Jupyter**, a Jupyter Notebook extension enabling arrangement of code cells in a multi-column layout, reducing time needed for effective data analysis by more than 50%. *https://github.com/elizabethc99/2D-Jupyter*
- Contributed to analysis of benefits of a multi-column computational notebook layout compared to a single column notebook

Graduate Teaching Assistant, Virginia Tech**,** Blacksburg, Virginia Fall 2021, Fall 2022
- Assisted in teaching 60+ undergraduate computer science students about basics of programming and software design
- Held 10 hours of lab sessions and office hours weekly to assist students and answer questions
- Graded weekly lab assignments and projects for two sections of 30+ students each