

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

### RELATED 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 versus a single column notebook

**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 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>

- 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 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