Kirsten Phillips
Software Engineer

k-h-phillips.github.io ⬈
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―――――――― Work Experience ――――――――

Software Engineer
Top Secret/SCI with Polygraph

IT Availability LLC. – Vienna, VA
September 2022 – ongoing

Python automated data collection and processing applications

`Python` `Playwright` `JSON` `MongoDB` `REDIS` `Bash Scripting` `Powershell` `Azure` `GitLab` `Linux` `Windows`

➔ Implemented Python applications on Azure infrastructure to accomplish automated data collection via APIs and other collection strategies
➔ Analyzed and transformed raw and unstructured data into semi-structured JSON data and collaborated with a full stack team that used ETL pipelines to extract entity relationships and display them to end users
➔ Designed and implemented MongoDB and REDIS databases to store scheduling information and collection metadata, successfully reducing duplicate data collection and storage costs by 50% for US-Government clients
➔ Implemented database wrappers for create, read, update, and delete (CRUD) operations via Python libraries
➔ Developed in both Linux and Windows operating systems and used bash and powershell scripting for automated tasks
➔ Contributed to standard operating procedures (SOPs) for code review, documentation, and codebase management

Front-end web application plugin

`JavaScript` `HTML` `CSS` `Bootstrap` `TypeScript` `Node.js` `React` `AWS` `S3` `EC2` `Lambda` `GitHub` `Java` `Selenium`

➔ Completed API and GUI modernization and refactoring efforts to increase efficiency, stability, and usability of a cross-platform plugin that automates a tedious and error prone process for US-Government host application users
➔ Collaborated on a simple, well documented, and easy to adopt web API for integrating developers of all different backgrounds and skill levels
➔ Conducted UI design reviews with internal and external parties to improve the user experience
➔ Collaborated on the front end to deliver a better user experience, using Bootstrap controls and conforming to strict website accessibility standards on par with the W3C standards
➔ Developed in a Linux OS on AWS cloud infrastructure and used the AWS S3, EC2, and Lambda services to gather statistics on plugin use cases
➔ Delivered a modernized release for the plugin with minimal defects in an agile SDLC on a 6 month timeline
➔ Led the development of automated UI testing suites which led to the discovery and remediation of bugs in both the web application plugin and an email client counterpart
➔ Supported production systems by answering requests for integration assistance

Software Developer

G3 Technologies Inc. – Ashburn, VA
August 2021 – September 2022

Full stack data driven web applications

`JavaScript` `HTML` `CSS` `Bootstrap` `C#` `ASP.NET` `Elasticsearch` `NoSQL` `Kafka` `Docker` `Kubernetes` `Ansible` `Jenkins CI/CD` `MariaDB` `gRPC` `Python` `Selenium`

➔ Used acquired domain knowledge in cellular technologies to perform ASP.NET (C#) maintenance development and Python automated testing for a full stack data driven web application
➔ Gained familiarity with common software engineering platforms and services that have widespread use, such as Docker, Kubernetes, Kafka, and Jenkins CI/CD
➔ Wrote complex Elasticsearch queries to test backend performance and algorithm accuracy
➔ Designed and developed a full stack application to ingest, process, load, and display audio data to end users
➔ Conducted in depth UI design reviews with UI experts
➔ Wrote custom ASP.NET (C#) server controls to meet specific UI and server requirements
➔ Used gRPC and protocol buffers for communication with underlying audio algorithms
➔ Designed and normalized a SQL database using MariaDB to store core application data
➔ Wrote a data model and wrapper layer in C# to enable SQL queries
➔ Participated in a culture of high programming and documentation standards, in-depth code reviews, and extensive unit, integration, and UI testing geared toward early bug discovery

Side Projects

k-h-phillips.github.io *(ongoing)*
- ➔ Web development project built with React, Next.js, NextUI, and Tailwind CSS
- ➔ Deployed with GitHub pages
- ➔ Created to offer more information about me, display my resume, showcase some web design skills, and serve as a platform to display future side projects

Codecademy Full-Stack Engineer Professional Certification
(completed Sept. 2024)
- ➔ 51 courses and more than 150 hours of coursework to hone software engineering skills and learn new technologies
- ➔ Completed mini projects to help gain hands on experience

Education

Bachelors of Science in Computer Science & Minor in Engineering Business
University of Virginia School of Engineering and Applied Sciences
3.88 GPA

- ➔ *Software development*: Software Development Methods, Program & Data Representation, Advanced Software Development, Computer Architecture, Algorithms, Operating Systems, Compilers, Programming Languages for Web Applications, Database Systems
- ➔ *IT and career*: Intro to Cybersecurity, Advanced Cybersecurity, Engineering Ethics and Professional Responsibility, New Product Development