Daniel J Barton

(+1) 763-333-6834 | Daniel.Barton446@gmail.com | linkedin.com/Daniel-Barton | github.com/DanielBarton446

Objective

Seeking to leverage concepts from the SOLID principle to operational observability and automation systems. Maintainability and extensibility are often sacrificed to yield quick results. I prioritize sustainable solutions.

Experience

Reliability Engineer – Observability May 2022 — November 2023

Bestbuy *Richfield, Minnesota*

- Maintained and enhanced observability tooling: Splunk, Elastic, Grafana, Graphite
- Frequently worked with Terraform, Chef, and Ansible to provision and configure AWS infrastructure
- Automated snapshot cleanup for Grafana, alongside building an improved restoration mechanism for dashboards
- Lead the migration task for authentication from crowd auth over to AD through SAML for Splunk
- Implemented automation for Splunk index creation. This enabled app teams to not be reliant on the regular 2-week deployment cycle where they would need to create a ticket to be added to the queue of new indexes
- Re-architect log file backup mechanism (for resiliency) for tens of thousands of dollars in yearly cost savings

Support Engineer – Metadata Frameworks November 2023 – Present

Susquehanna International Group *Bala Cynwyd, Pennsylvania*

- Lead a major migration task for on-prem infrastructure for minimized impacts on trading operations for the Firm
- Improved several manual operational tasks with automation where allowed, and through data representation otherwise. One particular case cut down a low priority daily task from hours to minutes.
- Implemented automatic token bundling for application deployment with our in-house deployment tooling
- Implemented multiple python-based monitoring additions. One gap was alerting on silently failing ELK watchers

Quality Intern at Boston Scientific June 2021 — September 2021

Boston Scientific *Arden Hills, Minnesota*

- Self-led the design and implementation to streamline diagnostics of Latitude Communicators. Circa 80% of communicators returned were targetable for this product. This saved around 8 hours a week for technicians
- Utilized Tera-Term macro programming language to implement automated testing
- Finished development a month ahead of schedule, spending the remaining time to manually validate and create thorough documentation regarding the new testing product

Education

University of Minnesota Minneapolis, Minnesota

Bachelor of Computer Science *May 2022*

- GPA: 3.38

Projects

[**Python**] **Optical Digit Classifier Neural Network** | *Numpy* November 2021

- Built a multi layer perceptron to recognize pre-processed images of handwritten numbers. Determined ideal number of hidden units within the hidden layer for optimal recognition accuracy and run-time. Test accuracy was 93%. 2D and 3D visualization using the hidden units with the largest variance to show the distribution of classifications.

[**C**] **Basic Chatroom** | *Pthread* April 2021

- Local server-client relationship from scratch allowing for chatting utilizing FIFO's. Extendable to sockets and over-the-network chatting. Utilized elementary multi-threading, and taught elementary concepts of networking.

[**C++**] **Voting System Simluation** | *doxygen* April 2022

- School team project that acted as a demonstration of waterfall and agile scrum work methodologies
- Created central waterfall documents, SRS and SDD
- Simulated user stories with arbitrary feature requests to be implemented within 72 hours on an existing codebase

Technical Skills

Languages: Python, C, C++, Rust, MySQL, Node.js, JavaScript, HTML, CSS
Technologies: AWS, Openshift, Terraform, Chef, Ansible
Certifications: Backend Development and API – FreeCodeCamp