

Daniel J Barton

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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

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

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

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