Ben Schwyn

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SKILLS

- Proficient Languages: Python, Java
- Proficient Technologies: Docker, Git, Bamboo, Mathematica, MATLAB, SQL, Behave
- Familiar Technologies: Elasticsearch, Solidity, Pytorch, Ruby, VBA, Scala, Javascript, HTML, CSS

META – Network Engineer, Automation & Tooling (Contractor) 2022 - Present

- Feature development and bugfixes for automated circuit diagnostic platform. Implemented ICMP, LLDP circuit protocol verification, logging across platform, APIs for historical data collection and ticket history, which were used to solve multiple SEVs.
- Collaborated with international team to add data collection and deployment support for diagnostics of Cisco switches in AI/ML datacenters.
- Automated network deployment workflows for network edge and backbone hardware.

IMPINJ - Software Engineer in Test 2019 - 2021

- Wrote microservices for mock data stream, data ingestion, and data aggregation for performance testing of rfid readers. Nameko, Python, Docker, TimescaleDB, Kibana
- Added extensive test coverage for rfid readers in behave integration testing framework.

ENHANCED RADIO DEVICES - Test Engineer (Contractor) 2018 – 2019

- Wrote automated test scripts for hardware and firmware of Arduino devices.
- Ported software defined radio control scripts from C to Python.

ZEROCOOL - Cofounder 2016 - 2017

- Built a smart refrigerator prototype using computer vision to create a food inventory.
- Crafted training data & image augmentation pipeline for computer vision algorithms.
- Developed low-level hardware integrations to extend functionality of prototype.
- Researched computer vision techniques before applying and ranking them with a custom framework.

INFOSPACE/BLUCORA - Software/Data Engineer 2015 - 2016

- Signals Platform: Wrote code to collect and aggregate social network and keyword data in Elasticsearch database for media promotion platform.
- Improved ad selection by sorting and parsing keywords to be shown on advertising tool, increasing revenues by ~15%.
- Built predictive models of competitor ad bidding algorithms based on empirical analysis.

PROJECTS

- **BIP32/BIP39 Cryptocurrency Wallet**. Uses elliptic curve cryptography to store chained tree of public/private keys with mnemonic keyword activation for Ethereum transactions. Python
- **Origami Structure Design Tool**. Dynamically generates and solves nonlinear optimization algorithm to solve circle-river packing problem on graph structures drawn with GUI to calculate fold locations for new origami models. Python, Tkinter, SciPy
- **Photomosaic Website**. Constructs a mosaic of a given picture out of images from a source directory. Python, Flask, PIL, HTML, CSS, JavaScript, AWS elastic beanstalk
- **Consulting**: Server & docker container setup (Medra.AI), Medium webscraper (Jangle)

ACADEMIC EXPERIENCE - UNIVERSITY OF WASHINGTON 2013

B. S. Physics

- NASA Summer Undergraduate Research Program, Mary Gates Research Scholarship 2011 - 2012

Undergraduate Researcher, Ultracold Atoms and Molecules Laboratory 2010 – 2013

- Fabricated a tunable extended cavity diode laser for photoassociation spectroscopy of ultracold Li-Yt molecules.
- Designed and fabricated multipurpose PID controller to regulate laser power.