Ben Schwyn

ben.schwyn@gmail.com 509-944-0334 https://github.com/bschwyn

SKILLS

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

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 structure drawn with GUI. Calculate fold locations for new origami models. GUI, Python, SciPy
- **Photomosaic Website**. Contructs a mosaic of a given picture out of images from a source directory. Python, Flask, PIL, HTML, CSS, JavaScript, AWS elastic beanstalk, http://benschwyn.com/mosaic/
- **Consulting**: Ring antenna design (Good Measure Design), Server & docker container setup (Medra.AI), Medium webscraper (Jangle)

META - Network Engineer, Automation & Tooling Responsibilities 2022-Present

- Feature development for automated ML circuit diagnostic platform. Implemented ICMP, LLDP circuit protocol verification, logging across platform, historical data collection and queries. Python
- Data collection and deployment support for router hardware in new AI/ML datacenters
- Automated network deployment workflows for network backbone routers.

IMPINJ - Software Engineer in Test 2019 - 2021

- Wrote microservices for false 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 radio use case examples 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
- Aggregated and cleaned data from a SQL server and other information sources

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