

JOSHUA SCHERTZ

Techie, visionary, optimist.

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joshschertz.com
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SKILLS

Programming: Python (Adv), C++ (Beg), JS (Beg)
Data: SQL, Postgres, Docker, machine learning

Tech: Linux (Debian - Adv), Git, Vim, AWS
Design: HTML, CSS, Flask, Fusion 360

TECHNICAL PROJECTS

pySecMaster (Python, Docker – AGPLv3 Securities Master)

github.com/camisatx/pySecMaster

- Built containerized data framework for storing interrelated finance data for over 20,000 public firms
- Developed code to handle stock/option prices, corporate actions, economic events, and financials
- Efficiently utilized PostgreSQL to store +100GB of relational data on remote servers

Eye Of Ra (Python, HTML, CSS, JS, Docker)

- US Federal political analysis website built in Flask using Docker containerization
- Automated scrapers process and store data (Postgres) before it's analyzed by ML algorithms for insight

Sayv Bot (Python – Event driven trading system using neural net)

- Co-built trading system that used automated strategies to directly trade stocks and options with broker
- Implemented a strategy that used a Multi-layer Perceptron model to predict multi-day stock volatility which provided consistent 0.5% weekly return over 6 months (Jun '16 – Nov '16)

System Administration

- Built physical systems: storage servers, multi-GPU systems (gaming, mining), HPC clusters (eBay parts)
- Maintain RAID arrays, multi-OS file sharing, network configuration (WiFi, LAN), and system backups

5 DoF Robot Arm (ROS, Ubuntu, Arduino)

joshschertz.com/projects/robotics

- Assembled 6 servo robot arm that uses ROS for control via Ubuntu to Arduino serial connection
- Designed a 3D CAD model (Fusion 360) of the arm that is used for ROS/Gazebo based simulations

EXPERIENCE

Freelance Programmer and Tech Consultant – San Antonio, TX

Jan 2017 – Present

- Helping dozens of individuals and small business solve technical issues

Cofounder and Programmer – Sayv LLC – San Antonio, TX

July 2015 – Dec 2016

- Cofounded an algorithmic trading firm that generated a weekly return of 0.5% within the options market
- Co-built the trading system, along with the open sourced database system that feed it (pySecMaster)
- Managed all legal, record keeping, accounting and tax activities of the 4 person company

Associate Corporate Economics Analyst – Valero Energy – San Antonio, TX

June 2013 – July 2015

- Processed and automated product forecasts and planned volume runs to derive company gross margin
- Helped maintain transfer pricing model to reflect market conditions (~40,000 codes at 25 refineries)
- Collaborated with traders and engineers from around the world to ensure forecasts were accurate

EDUCATION

Colorado School of Mines

MS Space Resources (Remote Program)

Expected Graduation in 2020

The University of Texas at San Antonio

BBA Finance; BBA Accounting

Class of 2014

Graduated with Business Honors, Cum Laude – Cumulative GPA: 3.56