

Michael Cardillo

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EXPERIENCE **Algo-Logic Systems** *San Jose, CA*

Senior Software Engineer

May 2022 to Current

- Architected a new version of a low-latency, cloud-based IOT platform, which received and analyzed data from hundreds of sensors at a rate of 200 samples/second, using tools such as Django, Redis, and PostgreSQL
- Developed a live, web-based display of IOT sensor data using WebSockets and React
- Created a DevOps dashboard using Grafana and Prometheus to help troubleshoot a legacy web system, leading to greatly reduced system downtime

Software Engineer

Feb 2021 to Current

- Refactored and maintained a Django web interface, as well as Flask microservice API, which customers used to configure their Tick-To-Trade FPGA system
- Developed a framework to generate sample messages for various different financial protocols (FIX, iLink3, OUCH, etc), which was then used by the test team to thoroughly test FPGA devices
- Crafted Dockerized unit tests and CI/CD pipelines for several existing software projects, leading to reduced regressions and quicker deployment times
- Developed a self-serve customer-facing license portal with Flask, saving the company money by replacing the existing commercial product

Cisco Systems *San Jose, CA*

Software Engineer, Core Software Group - Kernel

Sep 2011 to Sep 2016

- Automated quarterly merge/build/test process, which merged thousands of upstream OSS patches into our internal OS/kernel branch, reducing sync time from a week to 3 days
- Implemented a system call to return the memory address of a "system page" to a user-space process, reducing the amount of CPU context switching required for frequently accessed data in the page
- Enforced exclusive write-or-execute policy on all data segments, hardening systems against common overflow attacks
- Patched and rebuilt fixes for published Common Vulnerabilities and Exposures (CVEs) in open source code immediately

Software Engineer Intern, Release Engineering

May 2010 to Aug 2010

- Developed Perl scripts to perform common source code management tasks (e.g. counting lines of code in a repository, or determining which ClearCase component a file belonged to)

EDUCATION **Pennsylvania State University** *University Park, PA*

Bachelor of Science in Computer Engineering, 2011

PROJECTS **cbpro-trader** - *Automated Cryptocurrency Trader (Python/Flask/React)* **May 2017 to Feb 2020**

- Collected tick data for every completed order on the Coinbase Pro cryptocurrency market by connecting to their WebSocket feed
- Performed real-time technical analysis of cryptocurrency prices, using the ta-lib library, to generate common indicators used in currency trading
- Managed orders based on collected tick data, and corresponding indicators
- Developed a React web interface, and a curses-based console interface
- Became a collaborator to the Coinbase Pro Python library, due to frequent contributions

soundcloud-dj - *YouTube/SoundCloud Hybrid Playlists (Python/Flask/AngularJS)* **2014**

- Used Facebook Graph API to search for SoundCloud and YouTube URLs in FB groups
- Sent URLs in an HTTP request to an API endpoint to be stored in a database
- Used AngularJS on the frontend to dynamically select the correct player, then displayed the song in the appropriate YouTube or Soundcloud Player API