Mark Wiggans

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PROFESSIONAL EXPERIENCE

VIRTU FINANCIAL

Software Engineer - Typescript Full Stack

Drive best practice adoption on and optimize operations of a typescript middleware application

- Ran a website creation project through collecting requirements from clients, requested necessary apis from backend teams, hosted weekly standups with stakeholders, and built the website in Typescript React
- Rewrote database connector reducing the number of necessary connections by 90%
- Built schemas and Ajv validators for config json files and incorporated them into git hooks with Husky
- Restructured Lerna monolith repository so that its underlying applications could be deployed independently
- Implemented Playwright integration tests after working 1:1 with users to observe workflows

GOOGLE

Software Engineer III - Java Backend

Designed and implemented low-latency stubby apis in Java while monitoring uptime and handling outages

- Used A/B testing to ensure safety when migrating a C++ frontend between Java backends
- Wrote custom load tests to ensure SLAs compliance and scalability of a client's backend
- Managed multiple server stacks; allowing for different testing conditions
- Handled coupon generation and redemption in a 5-figure Google Shopping promotion
- Wrote and monitored integration tests for frontend and backend servers with Selenium
- Convinced stakeholders then executed automating server releases from a manual QA-based process

GOOGLE

Software Engineer - Intern

- Integrated with the Search Ads team to develop and deploy sampling, visualization, and statistical tools for understanding embedding layers of superscale deep neural networks trained in TensorFlow
- Developed Colaboratory dashboards with iPython, Dygraphs and Pandas to visualize machine learning data models using after manipulation in Pandas

REINVENTING GEOSPATIAL

Software Engineer - Intern

- Created database models for map cache and proxy for transition from CherryPy to Django
- Added a linter and code coverage calculations onto builds and managed testing infrastructure

EDUCATION

VIRGINIA TECH UNIVERSITY

Bachelor of Science in Computer Science, *magna cum laude* (GPA: 3.64/4.0)

PERSONAL

STOCK VIEWER github.com/mmw125/stocks

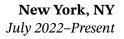
- Flask Python app that displays annual return percentages from selling options
- Pulls stock and options data from the TDAmeritrade API

FIRST ROBOTICS MENTOR

• Assist FIRST Team 743 with design, programming and electronics

SKILLS

Java, Python, C++, Android, Pandas, git, Typescript, React, Playwright, Teamcity



Fairfax, VA

Fall 2016

Pittsburgh, PA

Feb 2018–July 2022

Pittsburgh, PA

Summer 2016, Summer 2017

Blacksburg, VA Sep 2013-Dec 2017

> **Bronx, NY** Winter 2024