Tomiwa Ademidun

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WORK EXPERIENCE

Proteinqure, Toronto, ON, Canada 2020-2021
Software Research Engineer

- Built large scale molecular dynamic simulations pipeline running 1.2+ million protein binding simulations in 16 hours on a cloud agnostic distributed infrastructure using Kubernetes and Docker containers managed by an Argo workflow
- Integrate computational biology tools into production quality code such as MOE, VMD, Mordred, RDKit
- Built python CLI tool for dynamically querying both a Mongodb database and static files in AWS S3 simultaneously
- Built a web application for visually browsing an amino acid database using React. Web app was supported by a python microservice for amino acid similarity search built using the Flask framework
- Studied a Deep learning book as part of personal development to perform tasks better: https://github.com/ademidun/deep-learning-life-sciences-code

Properly, Toronto, ON, Canada 2018-2019
Software Engineering Intern

- First engineering hire for real estate tech startup that uses machine learning and neural networks to predict home prices with 96% accuracy and instantly buy and close on a home sale within 5 days
- Deployed a machine learning neural net model to accurately predict home prices in Calgary and engineered the pricing model web service to ensure it was ready for production using AWS Lambda and python Flask
- Optimized React web app: efficiently display 8,000+ homes on a map, utilizing caching, memoization, profiling etc.
- Designed provisioning of database resources to AWS CloudFormation and Infrastructure as Code design pattern
- Designed and built an automated direct mail service to create customized home offers

Atila Tech, Toronto, ON, Canada 2015-Present
Founder

- Built website that makes it easy to start and get scholarships
- Implement database architecture combining PostgreSQL and NoSQL DynamoDB
- Built a software bot that automatically finds scholarships and fills out scholarship applications including file submissions, button clicks, screenshots, using Selenium, Beautiful Soup and Headless Chrome
- Built Realtime web scraper automation progress tracker with Websockets, Celery and Redis
- Refactor Python Django Monolith server to Python Flask microservices architecture and built continuous integration (CI) DevOps workflow with Docker, CircleCI, Jest and Pytest testing frameworks
- Live Streamed refactor from Angular to React. Previous stack: Why we Chose Angular and Django over React and Ruby
- Implement a natural language processing algorithm to detect semantically similar questions and responses

Royal Bank of Canada, Toronto, ON, Canada Summer 2017
Software Engineering Intern

- Created a web application to automate the grants, loans and tax credit application process for businesses
- Implemented a machine learning SVM classification algorithm to assess creditworthiness of small business owners
- Presented an educational tech talk to co-workers on introduction to machine learning

Education

Ivey Business School, Western University, London, ON, Canada 2014-2020
Bachelor of Engineering Science (BESc), Software Engineering & Honors Business Administration (HBA) Dual Degree

- Dean's Honor List, 3.7 GPA, Men's Varsity Soccer
- Awards: Jessie and Tom Archibald OSOTF Award, Athletic Financial Award, Western Scholarship of Excellence

Projects

Austrian Quant (GitHub) – Algorithmic trading program that out-performed SP500 index over a 10-year period
Homes Like This – Image based real estate search engine for finding homes to buy using your phone camera.
Tomiwa's Blog – My writings on a wide range of topics: books, engineering, investing, biology, human psychology, etc.
Phlock (Github) **-** Unlock doors with your phone. Built Android app for client and Embedded systems programming using C# and Arduino (phlock.ca https://youtu.be/6JNnOmIRB-I)
OurGovernment.fyi (GitHub) – a simple nonpartisan guide to the Canadian Federal Elections

Skills

LANGUAGES Python, JavaScript, Java, Bash, C#, C++, PHP, SQL,
PLATFORMS Django, Flask, React, Angular, TensorFlow, Android, Arduino, Pandas, sci-kit-learn, Quantopian, Unix, Firebase (NoSQL), PostgreSQL, Amazon Web Services, Heroku, Google Cloud Platform, Visual Studio, Eclipse, Unity, DynamoDB, Lambda