

Alex Tecce

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PROFESSIONAL EXPERIENCE

Senior Software Developer, IQVIA — 2018 - present

Wrote a data validation tool for a major version upgrade of our .NET web app. Currently prototyping an API over our in house data store with multiple use cases (in particular a gRPC service, a web service that serves an Excel extension powered by Vue, and a Powershell client).

Software Engineer, Fidelity — 2017 - 2018

Maintained and added features to the eMoney .NET web app and maintained the simulation engine which projects the client's financial scenario out until death and is run 1000 times with random seeding to generate a Monte Carlo method

Contract Work — 2017 - present

- Refactored a Django backend on Heroku serving a React app to hit an SSO
- Wrote UI tests for an iOS app
- Designed a data model for a Google Firestore backend

EDUCATION

University of Colorado at Boulder, studied Mathematics and Computer Science. Some graduate coursework in Mathematical Statistics and Natural Language Processing

SKILLS

- Working from the shell and scripting with languages like bash, Powershell, and Python
- Using IDE's like Visual Studio and Xcode and maintaining large object-oriented projects that scale to model business domains with languages like Java, C#, and Swift
- Creating revision controlled and reproducible environments for CI/CD pipelines with tools like git and Docker
- Daemonizing and managing processes locally in a Unix environment with tools like systemd and launchd or deploying them remotely with public cloud infrastructure like AWS, GCP, and Azure
- Using Vue to build rich SPA's in the browser

ACADEMIC WORK

Software Lead, Project MarsOASIS

Developed the systems software for an autonomous greenhouse with a plethora of sensors and actuators controlled by a BeagleBone Black (<https://beagleboard.org/black>) used to conduct research by NASA for food production on Mars. Wrote drivers and daemons and then used that to administer the system and automate the regulation of the environment. Posted the data to a backend in for a frontend team to pick up.

Project URL: <https://github.com/atecce/MarsOASIS>

PERSONAL WORK

investigations

Wrote an ETL which scrapes www.lyrics.net for its content to pursue my interest in Natural Language Processing (surprising lack of corpora for song lyrics). The project models the domain as a tree (artists -> albums -> songs) and then concurrently traverses it with depth-first-search to scrape the content. Uses very fine-grained concurrency primitives right now and the TODO is to simplify things with a worker queue listening on a channel. Need to add a README.

Project URL: <https://github.com/atecce/investigations>