

Alexander Joseph Medeiros

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Profile

Intrinsically motivated developer who loves engaging with new problems and enthusing surrounding teammates.

Experience

SoundExchange | Washington, DC

Senior Full-Stack Developer (Java, Spring, Angular, Bash, PostgreSQL, Jenkins CI/CD, Docker, Lambda, Python)

Fall 2020 – Present

- Building and maintaining an app that tracks music royalties as they're played through Spotify, Pandora, etc.
- Independently architected and implemented a general reporting system that tracks key metrics and emails reports to subscribers. When I started at SoundExchange it took an entire sprint (two weeks) to build a report—with the new system, it takes less than a week.
- Integrated Cypress into our code base, an end-to-end (e2e) testing framework, which dramatically improved efficiency across the development team when writing front-end tests (as compared to our previous e2e framework).
- Migrated the front-end app from legacy AngularJS to Angular 8 (not the flashiest work, but honest work, indeed).

Capital One | McLean, VA

Senior Full-Stack Developer (Node.js, Javascript, React, Bash, MySQL, Jenkins CI/CD, Docker, Linux, ECS, EC2, Lambda, Golang)

Summer 2019 – Fall 2020

- Worked on a team of 3 developers and 3 business associates where I led the nodejs backend, React/Angular frontend, Jenkins build/deploy pipelines, MySQL/AWS Aurora database, and AWS Lambda/ECS infrastructure.
- Designed and implemented most architectural decisions for our self-service Cashier's Check Kiosk, including:
 - Fault-tolerant and resilient app/database architecture spanning east and west regions
 - Automation (via Jenkins pipelines) of our kiosk provisioning and software updates
 - Integration with Capital One's authentication and money movement REST APIs
 - This included scheduling time with other teams and ensuring my team was aware of integration requirements
- Mentored two junior developers on our sister team when they were without a team lead for 6 months.

FINRA | Rockville, MD

Mid-Senior Full-Stack Developer (Java, AWS StepFunction, AWS Lambda, Bash, Jenkins CI/CD)

Summer 2018 – Summer 2019

- Worked in a tight-knit team of 7 where I focused mostly on DevOps and the Java lambda development.
- Back in 2009 there was a batch job written to comply with regulation created by the SEC, however, the system that was running this batch job was deprecated and our team was able to isolate and migrate the sub-component to AWS in the span of three months (end of year deadline).
- Led the effort in isolating the old system, identifying external dependencies, dug into the old shell scripts and translated them to Java.

Project Del Inc | Leesburg, VA

Startup Founder & Full-stack IoT Developer (C, Kotlin, Typescript, electronics, CAD, Android, Angular, Firebase)

Summer 2017 – Summer 2018

- Full-stack Internet-of-Things engineer including skills in 3D modeling, prototyping, and embedded and application programming.
- Developed a pilot internet connected and smart coffee maker that automated the coffee making process for 1-2 weeks with little to no human intervention
 - Users had the ability to finely adjust all coffee making parameters including water temperature, coffee to water ratio, etc. using a wide array of electronic sensors such as digital thermometers
 - Remote controlled via web clients, mobile clients, and the machine itself
- Was also responsible for all business related tasks such as accounting, marketing, and networking

University of Maryland, College Park: Human Computer Interaction Lab | College Park, MD

Undergrad Researcher (C/C++, MATLAB, Arduino, Caffe Framework)

Fall 2016 - Summer 2017

- Built a real-time image classifier using the Caffe Deep Learning Framework to build, train, and test a neural network that classified our image set with 97% accuracy.
- Designed and 3D printed a finger-mount for a micro camera which was used as the data source for the classifier.
- Our work was accepted as a poster submission for the ASSETS 2017 conference.

Johns Hopkins University: Applied Physics Lab | Laurel, MD

Full-stack Software Developer (Java, Angular, Android, PostgreSQL, SQLite, MATLAB, GitLab CI/CD)

Fall 2014 - Spring 2018

- Full-stack application development, Java/Spring backend, Typescript/Angular frontend
- Built a proof-of-concept Angular app which pushed us into the next round of funding for another four years of development.
- Used GitLab CI/CD for automated test, build, and deploy
- Big data processing (multi-million data points) and GIS visualization using Google Earth

- Polygon and spherical coordinate mathematics for GIS visualization
- Built Android logging library for customer applications including the US Navy and US Border Patrol.
 - Android UI development
 - Location and time based data collection

Education/Qualifications/Side-projects

- B.S. (May 2017) in Physics and Computer Science from University of Maryland, College Park
- Cumulative Undergrad GPA: 3.79
- AWS Cert Workshop Instructor (taught AWS once a week to new hires)
- Built a mini operating system using assembly and C for x86 hardware including syscalls, memory mapping & paging, scheduling, multi-threading, and a filesystem implementation.
- Built a half-decent videogame in Unity3D
- Built internet-of-things WiFi connected Arduino light controller (similar to Phillips Hue light bulbs)