# Kyle Musco

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## PROFESSIONAL EXPERIENCE

**Orbit Logic** *Software Engineer* March 2018 - Present

- Lead iOS, Android and backend developer for SpyMeSat (Objective-C, Java, Node JS, MongoDb)
- Lead Android developer for DARPA's Blackjack program: Allows soldiers to place tasking orders to a 120 satellite constellation and view data products from their Android tablet
- Designed location monitoring as a service feature which aggregates satellite imagery archives to alert users of new imagery for their locations of interest, increasing imagery sales by 60% in 2019
- Lead for an Air Force SBIR to detect frack sites in satellite imagery with 70% accuracy (OpenCV, Python)
- Automated SpyMeSat QA process by creating unit, interface and integration tests (XCTest, Espresso)
- Maintained production servers hosted through Amazon Web Services
- Maintained CI server for uploading builds to the App Store and Google Play, and automated testing (Jenkins)
- Containerized SpyMeSat server with Docker
- Managed team of developers and systems engineers with Jira
- Lead initiative to create API documentation for multiple Orbit Logic products using Slate

## PROJECTS

**Navigator**

- Laboratory management web application for MRG Laboratories, a grease and oil analysis company (Java, jQuery)
- Provides customers with real-time status updates and analysis reports through a dashboard
- Developed REST API for lab equipment to post results to Navigator when tests complete
- Hosted on Amazon Web Services (EC2, RDS, S3)
- Used to manage grease and oil samples by companies such as Boeing, Honda, Volkswagen, Hershey

**App Controlled Orrery**

- 3D printed solar system model powered by a Raspberry Pi and controlled by an iOS app over Bluetooth
- Designed custom PCB to drive 8 stepper motors and power Raspberry Pi
- Models planet positions in real time and accelerated speeds

**SpyMeSat Web**

- React based web application to model satellite orbits in real time using Cesium JS
- Calculates overflight times for a specified location
- Optimized orbit propagation using web assembly compiled with emscripten

## LEADERSHIP

**YCP Hacks**

- Organized York College of Pennsylvania's first hackathon in 2016
- Fundraised $25,000 from corporate sponsors
- Developed web application for user management in Node JS, MongoDb and hosted on Heroku
- Return annually to mentor organization team and volunteer for the weekend

## SKILLS

- Languages: Java, Objective-C, Python, C#, C, Javascript, Swift, Kotlin
- Frameworks: Node JS, Express, React, React Native, .NET, jQuery, OpenCV
- Cloud Platforms: AWS, Azure, Google Cloud, Heroku
- Project Management: Jira, Confluence
- Prototyping: Adobe XD, Eagle, SolidWorks

## EDUCATION

**York College of Pennsylvania**

- Computer Engineering, May 2017