

RYAN PIERCE

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SUMMARY

Engineering

- NASA JPL Mars 2020 robotic design and analysis - 1 year
- CAD/FEA with NX Nastran - 1.5 years industry experience
- Aerospace Consulting - analysis and test-driven design
- Launch Vehicle CAE - modeling, modal analysis, CFD

Computer Science

- Android Java/Kotlin Engineer - 5 years total experience
- Designed APIs for cloud-based financial applications
- CubeSat software engineering - spacecraft autonomy
- Wrote QuickShake, a native mobile app in Java and Swift

EDUCATION

Georgia Institute of Technology

- Bachelor of Science in Aerospace Engineering
- Highest Honors

Atlanta, Georgia

Graduated: August 2018

EXPERIENCE

CAPITAL ONE

Android Developer

Feature development for Capital One's Android mobile app.

- Deliver new features for the Android mobile app using modern design patterns and architectures in Kotlin and Java.

Chicago, Illinois Mclean, Virginia

September 2019 - Present

CAPITAL ONE

Software Engineer

Developed commercial software for Capital One's cloud-based online banking applications with a focus on building fast, portable, and high-performing APIs for both internal operations and external facing commercial products.

- Developed a high-traffic API for credit card services, directly supporting millions of dollars of value each day.
- Learned to problem-solve in high stress situations to support critical API's in production.
- Built tools that allow for faster deployment of APIs designed to interface with AWS cloud infrastructure.

Mclean, Virginia Richmond, Virginia

October 2018 - August 2019 Summer 2017

ATA ENGINEERING

Aerospace Engineering Intern

Provided analysis and test-driven design solutions focusing on the engineering needs of major manufacturers in addressing their cost, quality, and time-to-market engineering challenges for mechanical and aerospace systems.

- Prepared NASA's Mars 2020 Rover for launch and operation by achieving positive stress margins while maintaining stiffness requirements and minimizing overall mass of spacecraft hardware.
- Supported many projects through stress, thermal, buckling, bolted-joint, modal, and CFD analysis-driven design.
- Gained a high level of proficiency in NX Unigraphics, Femap, SolidWorks, and Nastran across four semesters of work.

San Diego, California Denver, Colorado

2014-2016

LEADERSHIP

CUBESAT SOFTWARE ENGINEERING

Independent research developing flight software for onboard autonomy and in-flight configuration.

- Developed core functionality for the Command and Data Handling subsystem.
- Focused on power distribution, signal transmission, and data encoding and processing.

Atlanta, Georgia

2017-2018

MOBILE APP DEVELOPMENT

Developed QuickShake™, a native mobile app for seamlessly sharing social media and contact information.

- Android and iOS mobile apps written natively in Java and Swift, respectively.
- Currently published for beta-testing in the App Store and Google Play Store.

Chicago, Illinois

2016-Present

SKILLS

Engineering: CAD, CAM, CAE, FEA, CFD, NX Unigraphics, Femap, Nastran, SolidWorks, Autodesk, STAR-CCM+
Software: Java, C++, MATLAB, HTML, CSS, JavaScript, PHP, Swift, Arduino, Android SDK, iOS SDK, Unix, Linux
Interests: Circuitry, Programming, Physics, Mathematics, Web Design, Embedded Devices, Raspberry Pi, Hackathons
Leadership: QuickShake Founder, Sigma Gamma Tau Officer, Grand Challenges Project Leader, Unicycling Club Founder
Research: AIAA and SAE Aerospace Design Build Fly, CubeSat software engineering for autonomous operations
Certifications: AWS Certified Solutions Architect - Associate