

RYAN PIERCE

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SUMMARY

Engineering

- NASA JPL Mars 2020 robotic design and analysis - 1 year
- CAD/FEA with NX Nastran - 2 years industry experience
- Aerospace Consulting - analysis and test-driven design
- Launch Vehicle CAE - modeling, modal analysis, CFD

Computer Science

- Java Engineer - 5 years total/3 months industry 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

- Pursuing a Bachelor of Science in Aerospace Engineering
- Overall GPA: 3.85 / 4.00
- B.S. AE GPA: 3.85 / 4.00

Atlanta, Georgia

Expected Graduation: August 2018

EXPERIENCE

CAPITAL ONE

Software Engineering Intern

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.

- Engineered Java-based APIs to enable faster, more streamlined internal software development.
- Built tools that allow for faster deployment of APIs designed to interface with AWS cloud infrastructure.
- Decreased code footprint by 45% and improved runtime speed and memory usage by approx. 35% and 60%, respectively.

Richmond, Virginia

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-Present

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

GRAND CHALLENGES LIVING AND LEARNING COMMUNITY

Leadership program for analyzing the world's grand challenges through team dynamics and proposals.

Built software applications that improve patient identification in pediatrics through biometric identification.

- Team leader by guiding the project vision, determining metrics for success, and delegating critical project roles.
- Developed eParamedic, a mobile app which was presented as a top hack at the Georgia Tech hackathon, HackGT.

Atlanta, Georgia

2013-2015

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