

Thanks for reading! I am a passionate software engineer with great interest in game development, mobile applications, cloud computing, and real-time systems.

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## Education

**University of Virginia**, Charlottesville, VA  
BS Computer Science, with Distinction  
Cumulative GPA: 3.56

August 2014 - December 2017

## Work Experience

**Collins Aerospace**, Sterling, VA

July 2019 - Present

*Software Engineer, Flight Controls and Navigation*

- Developing with the C programming language for the OSE real-time operating system targeting PowerPC architecture
- Implemented a mission load module for multi-processor communication via Ethernet
- Enhanced a mission load module to interface with an anti-jam antenna via serial connection
- Wrote Windows PowerShell scripts to automate and speed up load module testing
- Designed and wrote software test procedures for unit and integration testing

**Capital One**, Mclean, VA

February 2018 - July 2019

*Associate Software Engineer, Small Business Tech/ Operational Engineering*

- Contributed Java code to Centaur, the Small Business credit decisioning engine
- Built compliance APIs using Python, AWS Lambdas and DynamoDB for Bogie, the enterprise application deployment pipeline
- Developed widgets to Health Hub, an enterprise-ready compliance and security dashboard built using Django

**Capital One**, Mclean, VA

June 2017 - August 2017

*Software Engineer Intern, Card Rewards*

- Built the Rewards Earn Batch Fulfillment, an application that increments/decrements the rewards balance for many accounts at once
- Used Java 8 for development and integrated Apache Spark for scalability and processes parallelization
- Migrated account information from MongoDB for data aggregation in Cassandra tables; integrated application with existing Rewards platform
- Performed E2E testing via Jenkins, Sonar, and Cucumber
- Deployed into production and serviced over 10 million accounts

**Leidos**, Alexandria, VA

May 2016 - August 2016

*Software Engineer Intern, Surveillance & Reconnaissance*

- Worked on the Reduction of Data Using Compression Enhancement (RDUCE) project
- Optimized the software build process for LIDAR compression technology to remove deprecated software dependencies
- Developed a unit testing framework for the software API and internal libraries to support continuous integration
- Debugged and contributed back-end code in C++ using the RDUCE library
- Researched C++ open source libraries and arithmetic encoding techniques to help improve upon components of the project

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## Additional Experience

**University of Virginia**, Charlottesville, VA

January 2016 - December 2017

*Teaching Assistant, CS 2110 (Software Development Methods) and CS 4970/1 (Capstone Practicum)*

- CS 2110 TA responsibilities included helping students understand the material during office hours and lab, and grading exams and assignments
- CS 4970/1 TA responsibilities were to help the Professor develop a new course logistics application in Django

**Miracle Messages**

September 2016 - May 2017

*Lead Mobile Developer*

- Built an Android application for the California-based non-profit organization Miracle Messages that “helps homeless people record short video messages to their long lost loved ones” ([www.miraclemessages.org](http://www.miraclemessages.org))
- Uses Amazon Web Service’s S3 and Google Firebase to store uploaded videos for the organization
- Written in Java using Android Studio, AWS Android SDK, and Google Play Services

## Personal Information and Activities

**Github:** <https://github.com/CheerfulSatchel>

**Programming Languages :** C/C++, Java, Python, Swift, Javascript

**IDEs:** Visual Studio, IntelliJ, Android Studio, xCode

**Personal website:** <https://cheerfulsatchel.github.io/>

**Frameworks:** Unreal Engine 4, Django, Ruby on Rails