

Thanks for reading! I am a passionate software engineer with great interest in video game development, iOS, C++ projects, 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

**Capital One**, Mclean, VA

February 2018-Current

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

- Contributed Java code to Centaur, the Small Business credit decisioning engine
- Rebuilt the transaction underwriting model scoring component using Java Spring Boot
- Built deployment pipeline compliance APIs using AWS Lambdas and DynamoDB, written in Python
- Developed widgets to Health Hub, a Card LOB 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; will be released into production

**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

**University of Virginia**, Charlottesville, VA

January 2016 - December 2017

*Teaching Assistant*

- Teaching assistant for 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

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## Side Projects

**Miracle Messages**

September, 2016-October 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
- Released to Google Play on October 18, 2016

**Star Runner 2019**

March 2019-present

*Project Manager and Software Engineer*

- Infinite running game for PC, developed using Unreal Engine 4
- Formulated and implemented a self-mutating algorithm that allowed the game environment to extend itself indefinitely
- Written in C++

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## Personal Information and Activities

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

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

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

**Charlottesville-Albermarle SPCA:** Volunteer Shy Animal Socializer, August 2015- May 2016

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

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

**Marathons:** International Peace, Rock & Roll DC 2019