Douglas Allen

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EDUCATION

University of Colorado Boulder Boulder, CO
Bachelor of Science in Computer Science *Aug. 2014 – Dec. 2017*

EXPERIENCE

Lockheed Martin Space Systems Littleton, CO
Software Quality Engineer *Sept. 2018 - Present*

- **Orion Test Engineer**: Currently running tests on all software based systems in NASA's Orion capsule scheduled to launch in Exploration Mission 1 and 2

Novus Biologicals Littleton, CO
Quality Assurance *May 2015 - Aug 2015*

- **Vial Quality Assurance**: Ran checks through over 2,000 research vials and found and replaced roughly 100+ incorrect vials

Evolved PCs Parker, CO
Founder *May 2010 - Aug 2014*

- **Product Creation**: Built a small business focusing on creating PCs for clients specific needs, created the website from scratch using HTML, CSS, and PHP

SKILLS

- **Languages**: Best language is Python, comfortable with C++, C, Java, JavaScript, Node.js, SQL and some Scala.
- **Operating Systems**: Best is GNU/Unix, extensive experience working with Windows CMD and PowerShell, adequate experience working with ARM processors such as Raspberry Pi and Nvidia Jetson, minor experience with MAC OS
- **Technologies**: AWS, React, Unity, Android Studio, Beautiful Soup, TensorFlow, OpenAI, ROS, OpenCV, IntelliJ, ThymeLeaf, JSON, REST, Visual Studio, MVC, Socket.io, Heroku, Jenkins, JIRA, CodeCollab

PROJECTS

- **Autonomous Drone**: Drone built from the ground up with the purpose of being able to fly 10 miles and carry 20 lbs autonomously. Scripts written in Python on a Raspberry Pi 3
- **Robotic Mining**: CU Boulder's entry for NASA's Robotic Mining Competition, built the autonomous systems through C++ and Python on a Nvidia Jetson
- **Quantitative Trading**: Stock trading scripts designed to work with Robinhood Api written in Python and Node.js
- **Camp Sparki Lake**: Robot designed to do Path Planning under constraint of 2.5Kb of RAM
- **GTA Autonomous Driving**: Machine Learning model created to autonomously drive in the game environment of Grand Theft Auto 5. Written in Python using OpenCV and TensorFlow
- **StarCraft 2 Machine Learning**: Created a Machine Learning model with the purpose of training it to learn how to play StarCraft 2. Built a randomized learning and then a Q-Learning model using OpenAI and TensorFlow, written in Python
- **BlocksAR**: Android game using Google's ARcore to create the classic Blocks game in Augmented Reality. Written in C using Android Studio and Unity.
- **Stock Score**: Website created to rate stocks based off current Sentiment from the website StockTwits and technical indicators. Written in Java using IntelliJ and Thymeleaf
- **VR Experiences**: Created 3 VR experiences/games for the HTC Vive. Written in C and built using Unity
- **Topic**: Android application that allowed users to view and post messages local to their current area. Written in Java and built with Android Studio

AWARDS

The Leaps and Bounds Award Kennedy Space Center, FL
NASA *June 2018*

- **NASA's Robotic Mining Competition**: Awarded to the most improved team over 50 different universities