# Derek Holland

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## Education:

**University of Colorado**, B.S. in Computer Science with a Minor in Economics

- Graduated in 2018 with GPA of 3.429
- Commonly Worked in team environment gaining experience in agile and waterfall development strategies

**Relevant Courses** : Programming Languages, Databases, Geospatial Data Analysis, Intro to Artificial Intelligence, Theory of Computation, Operating systems, Human Centered Design and Development

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**Programming Languages** - C, C++, C#, Python, Java, MySQL, Scala, R, Git, Stata
**Software Packages**- Intellij( Android Studio, Pycharm), QGIS, Django, Gradle
**Operating Systems**: Windows (7, 10), Linux

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## Project Experience:

- Created an Android App using Java to control music volume while a person skis or snowboards, but unlike other volume changing apps based on speed this app also predicts whether the user is on a lift and can control volume based on that trait as well. It is published to the Google Play Store under Ski-J https://play.google.com/store/apps/details?id=e.dholland.ski_j

-Built a website where users can rate movies and post reviews, and follow other users to see their reviews. The backend is a Rest API built with Django and Django Rest Framework with mySQL database and Java Web Tokens for verification. The frontend was built in React.js.

- Using CSV data from USDA I analyzed the effect of Irrigation on Corn Production in the five largest corn producing states. I created a rainfall map with GPS point coordinates and overlaid that with county agricultural data in Qgis for both irrigated and non-irrigated land and plotted differences using Matplotlib in python.

- Constructed a programming language in Scala that implemented types, lists, recursion, and classes.

- Using Python created a machine from text data from previous plays of a game which could accurately predict a players role between honest player or deceiver in a 3 person deception game.

- Parsed public rainfall data from NOAA stations in China and created maps in QGIS to analyze differences in rainfall and their effect on grain production from 1957 until 1963 to analyze a drought as a multiplier for mass starvation during the Great Leap Forward.

- Working with a five person team, we developed and tested algorithms to decompose graph databases into chunks that are both more efficient to store persistently as well as more easily read into memory. We used C to implement these algorithms.

## Work Experience:

**University of Colorado Housing and Dining Services Student Manager (** August 2014-June 2018)
Train, evaluate, coach, organize and manage staff
Check workstations and ensure all tasks were completed for closing

**Ram Village Maintenance Crew, Fort Collins** (May 2016-August 2016, May 2015-August 2015)
Repair, patch, touch up, perform removals and clean a large student apartment complex.

**Soccer Referee (Grade 8 License)** (March 2006-2014)**:**
Referee for the Fort Collins Soccer Club from age 10 to 17.
Center refereed games up to the Under 14 age group.
Act as assistant referee for player ages and adult leagues.