

Sam Q. Hollenbach

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Developer with a deep background in quantitative science, applying my passion for programming to full-stack web and mobile development.

Education

Macalester College, St. Paul, MN

Physics (with astronomy emphasis), Computer Science

Varsity Baseball, NCAA Division III

September 2015 - Present

Expected graduation: *May 2019*

Experience

Research Intern, Southwest Research Institute, Boulder, CO

Summer 2018

In this NSF funded summer research position I worked on Python scripts for sunspot series reconstruction. I identified new reconstruction approaches by employing high-level visualizations and tailored machine learning algorithms, which improved model confidence by up to 75%.

- SciKit-Learn, TensorFlow, matplotlib [github.com/samhollenbach/ADFSSN]

Software Intern, University of California, San Francisco

Summer 2016, Summer 2017

While working in the UCSF Department of Neurology I wrote a number of scripts that performed bioinformatic data analysis, which is included in a recent peer-reviewed scientific publication.

- Joblib (Python) [github.com/samhollenbach/KIRVCF]
- Publication: ncbi.nlm.nih.gov/pubmed/30321631

Independent Project, Bullpen Tracker

September 2017 - Present

iOS app, web interface, and API for recording and analyzing pitching data for baseball teams.

- Expected iOS App Store release January 2019 [github.com/samhollenbach/BullpenTracker]
- Website: bullpentracker.com [github.com/samhollenbach/BullpenTrackerServer]

Notable Past Projects

- Spiral galaxy N-body simulation and visualizer in Python [github.com/samhollenbach/Galaxy2]
- Mod creation for hit computer game Minecraft (2010 - age 13) amassing over 2,500 downloads.

Technical Skills

General Purpose

- Python, Java, C, C#, Rust, R, MySQL
- Git, AWS (*EC2, Lambda, RDS, Elastic Beanstalk*), Docker
- IntelliJ IDEA, PyCharm, Visual Studio Code, RStudio

Web Development

- JavaScript, HTML/CSS, Python
- React, JQuery / AJAX, Chart.js, Flask, Django, SQLAlchemy, Bootstrap, Sass

Mobile Development

- React Native, Swift, Xcode

Current Learning

- GraphQL, C++