

# Sean Cooke

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GitHub: <https://github.com/SeanCooke>

## SKILLS

- Experienced machine learning engineer with years of success as a full-stack software engineer
- Highly qualified with Python, NumPy, Pandas, scikit-learn, Jupyter, SQL, Bash, R, AWS, and Git
- Skilled in Machine Learning, Big Data, Cloud Computing, Data Pipelines and Data Visualization
- Talented with design and efficient implementation of algorithms and data structures
- Passion for creating practical, scalable, data-driven solutions to complex, healthcare issues

## EXPERIENCE

**athenahealth**, Watertown, MA

May 2018-Present

Data Engineer

- Coauthored research showing addition of Apple Watch atrial fibrillation detection software did not increase AFib claims using Difference-in-Differences Estimation
- Reduced daily extract failures from 677 to 5 in 1 month by optimizing SQL. Optimizations help prevent EHR outages for hospitals and increase ETL job success rate
- Migrated revenue reporting machine learning model from DC/OS to AWS by creating new AWS RDS, S3 instances, and updating code to use new resources; annual cost savings of \$120,000
- Implemented automated log monitoring for data pipeline using AWS SNS, Lambda, and Slack API

**University of Rochester Medical Center**, Rochester, NY

June 2014-April 2018

Software Engineer

- Designed, implemented, and supported <https://urattendance.urmc.rochester.edu>, an attendance tracking website for medical residents and fellows; allows physicians more time with patients; reduces administrative time by 2 hours per meeting
- Created web-based reports leveraging secure, clinical trial (HIPAA) data to steer decisions
- 2017 Meliora Award nominee for years of outstanding service and organizational contributions; highest honor awarded to staff members; 5 time Strong Star recipient for outstanding software engineering

**KrowdFile**, Remote

December 2013-June 2014

Data Science Intern

- Quantified how 'good' a freelancer is by mathematically determining and implementing KrowdScore, a numerical value between 1 and 100 aggregated from ratings across many freelancing websites

## PROJECTS

**Tumor Classification**

<https://github.com/SeanCooke/tumor-classification>

- Random forest classifier achieves 96% accuracy on diagnosis from Breast Cancer (Wisconsin) Data Set

**tweetcloud**

<https://github.com/SeanCooke/tweetcloud>

- Twitter word cloud generator which creates beautiful, colorful tweet visualizations for a given user

## EDUCATION

**University of Rochester**, Rochester, NY

August 2015-May 2017

- Master of Science in Computer Science; GPA: 3.46

**SUNY Geneseo**, Geneseo, NY

January 2011-May 2014

- Bachelor of Arts in Mathematics, Minor in Computer Science; Dean's List Spring 2014
- Geneseo Recognizing Excellence, Achievement, and Talent (GREAT) Day Mathematics Lecturer