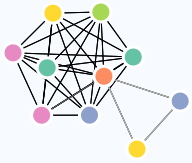
BRIAN BLAKELY

I have developed Python libraries which have decreased data processing computation time by over 200%[1], which has helped many researchers explore geospatial data quickly, created software to accurately track your pupils in real time in Python[2] to help my disabled, late friend play video games easier, and generated a fairly popular data set containing the lyrics of all top 100 songs in the last 60 years[3].

Currently searching for a position that allows me to build tools leveraging multithreading, machine learning, and software engineering to help business and researchers explore and understand their data quickly and easily.



EDUCATION

2021 | 2016

B.S., Computer Science, Mathematics

Bowling Green, OH — Bowling Green State University

- Double majored in Computer Science and Mathematics.
- Major GPA: 3.7
- Honors & Awards: Dean's List

RESEARCH EXPERIENCE

2021 | 2020

Undergraduate Data Science Researcher

Applied Statistics Department — Bowling Green State University

- Collaborated with a team of seven members for three over semesters to research multiple different areas of Covid-19 related data science research.
- Researched areas such as; Covid-19 variable importance measures, MSA level sentiment analysis of tweets, multi-signal predictive model by county, and more.
- Full stack data scientist: Fully automated the collection & processing of various different data sources, then built models to analyze them.
- Identified and solved a major flaw in a large public data source, then leveraged that solution for better data.
- Optimized multiple processing and analysis functions using parallel processing.

2018 | 2017

Undergraduate Mathematics Researcher

Department of Mathematics — University of Dayton

- Researched a generalized approach to compute the volume of revolution.
- As a freshman, worked directly with my professor to extend and generalize a concept taught in class.
- Presented the research at a yearly undergraduate research conference, covering the pros & cons of my approach.

INDUSTRY EXPERIENCE

View this CV online with links at https://bpblakely.github.io/cv/docs/cv

CONTACT

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github.com/bpblakely

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LANGUAGE SKILLS

- Python
- Java
- C++
- R
- SQL
- Scala
- Batch

*Made with the R package **pagedown**.*

The source code is available on github.com/bpblakely/cv.

Last updated on 2020-09-24.

I often contribute to open source projects and am passionate

2021 | 2020

Open Source Developer

SafeGraph

- Developer of SafeGraphs multithreaded Python library.[4]
- Created functions used by thousands of researchers that utilizes parallel processing to significantly decrease computation time.
- Decreased computation time by over 200%, which enabled easier large scale processing of SafeGraph data.
- Co-hosted a presentation which introduced this Python library and displayed the power of the multithreaded functions.

2020 | 2019

Independent Developer

- Developed and maintained software for a video game on my free time and distributed it to 30-40 users weekly.
- Solved problems for user compatibility and performance issues.
- Underwent the stages of development under a strict time frame.
- Released polished software publicly which has been used several thousands of people.

COLLEGIATE ACTIVITIES

2020 | 2020

Hackathon: Second Place

Department of Computer Science — Bowling Green State University

- Analyzed the lyrics of the top 100 songs in the last 60 years using natural language processing and topological data analysis.[5]
- Generated a data set by web scraping multiple sources to get the top 100 songs for every year and get their corresponding lyrics.
- Created word clouds and frequency graphs to show the trends in lyrics over time.

2018 | 2017

Video Game Club, Vice President

University of Dayton — University of Dayton

- Collaborated with a team of three to arrange and coordinate events attended by over 40 people on a bi-weekly basis.
- Largest growing club during the 2017-2018 academic year.

SELECTED PUBLICATIONS, POSTERS, AND TALKS

2021 | 2020

A Solution to Biased Twitter Sampling

Applied Statistics Department — Bowling Green State University

- An introduction and analysis of how to correctly sample tweets from Twitters free Search API.
- This paper is still in the works, but should be published in early 2021.

I am passionate about new learning experiences and actively seek ways to grow my education.

RELEVANT COURSEWORK

Computer Science

- Machine Learning
- Software Engineering
- Analysis of Algorithms
- Object Oriented Programming

Mathematics

- Statistics
- Statistical Learning
- Real Analysis
- Numerical Analysis

LINKS

1. https://colab.research.google.com/drive/1V7hnyYuY_dUXQEPkCMZkgMuBFQV4iA_4#scrollTo=ZaejMX3pEVvT
2. https://github.com/bpblakely/Python-Pupil-Tracking
3. https://github.com/bpblakely/Analysis-of-Historically-Popular-Songs/tree/master/Data
4. https://github.com/SafeGraphInc/safegraph_py
5. https://github.com/bpblakely/Song-Analysis-Revisited