

# ROHIT BANERJEE

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## EXPERIENCE

### Software Developer

#### General Motors

March 2021 – Present

- Created original user-friendly automation scripts to migrate large amounts of data/metadata between legacy and current data infrastructure
- Reduced data processing time significantly by removing unnecessary redundancies in data job processing
- Operated as Data Lead for a small team of BI developers and business users

## ACHIEVEMENTS

- Eagle Scout Award.
- First place at the 2019 Benedictine University Data Visualization Hackathon.
- Presented research in mathematical computing at the Undergraduate Mathematics Research Symposium at the 2019 Joint Mathematics Meetings in Baltimore.

## PROJECTS

### Localized Crime

- Used a k-Means Clustering Algorithm to determine hotspots of crime in Chicago by utilizing the Chicago Public Data Portal for Benedictine University Data Analytics and Visualization Hackathon. Completed this project within 24 hours with 3 other teammates and presented our findings to the judges.

### Planar Disk Packing (Undergraduate Research)

- Worked with a partner to develop a physics engine and visualizer for disk-packing experiments in JavaScript. Once we had settled on the algorithms we would use I ported the program to C++ and integrated CGAL (Computational Geometry Algorithms Library) libraries to optimize data collection.

### Graph Algorithms on BTC Blockchain (Undergraduate Research)

- Investigated the efficacy of graph algorithms to generate metadata on accounts in the BTC Blockchain by using an open-source Blockchain parser and Jupyter Notebooks to present the data. My main task was optimizing the algorithms used to allow them to run within reasonable times on the increasingly large BTC Blockchain.

### Rocket League Bot

- Personal project to make the best computer controlled player in the video game Rocket League. Ongoing project with projected inclusion of unsupervised machine learning should deterministic algorithms fail.

## EDUCATION

University of Illinois (UIC) - 3.5/4.0

**Bachelors of Science in Mathematics and Computer Science with a concentration in Algorithms and Theory**

August 2016 – May 2020

#### Courses in:

➤ Proof-based Mathematics, theoretical/applied Computer Science, and Statistics/Probability

#### Major GPA:

3.8

#### Extracurriculars:

Member of the Math Club, Putnam Team, ACM (Association for Computing Machinery), MCL (Mathematical Computing Laboratory) and Algorithmic Trading Club

## TECHNICAL SKILLS

- **Languages**
  - Programming [C++, C#, Java, Rust, SQL]
  - Scripting [Python, Bash, JS]
  - WebDev [HTML/CSS, Bootstrap, Svelte]
- **Libraries/APIs**
  - OpenGL, Pandas, NumPy, scipy, matplotlib, Alpaca, CGAL
- **Software/Systems**
  - Linux, Jupyter Notebooks, CMake, Git, IDE Debugging
- **Mathematical Theory**
  - Number Theory, Graph Theory, Combinatorics, Probability, Cryptography, Linear Algebra, Differential Equations

## HOBBIES

- Solving math/computing puzzles (Project Euler and HackerRank).
- Reading.
- Lifting (760lb total)
- Taking exorbitantly long naps with my dog.