

# Josie Mace

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Location : Brighton, MA

## EDUCATION

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- **Illinois Institute of Technology** Chicago, IL  
*Bachelor of Science: Artificial Intelligence* Dec. 2022

## EXPERIENCE

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- **Data Analyst** Chicago, IL  
*Digby's Security Agency* May 2022 - Dec 2022
  - **Python; Software Development:** Pulled detection data from a remote surveillance robot, then filtered, cleaned, and manipulated data using personally developed Python programs. From this information, I then generated various reports leading to a 54% increase in response time/company-wide efficiency.

## PROJECTS

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- **Remote Telescope Commissioning**  
*In collaboration with IBM* Aug. 2021 - Dec. 2021
  - **Swift Pathfinding:** Developed a breadth-first pathfinder in Swift that uses a KDTree and priority queue, allowing a telescope to move to a given equatorial coordinate without self-collision
  - **UI Refinement:** Refined UI FITS image viewer to allow for multi-image processing and colorization
- **Feature Extraction**  
*Data Mining* Jan. 2021 - May 2021
  - **Methodology:** Split features from a given data frame to establish corresponding class using a PMML pipeline, then implemented an Ada-Boost, Random-Forest, and Gaussian-Process classifier to categorize the given data within 0.1 percent accuracy
- **Image Classification**  
*Personal Project* Nov. 2021
  - **Methodology:** Using the Tensorflow Python library, the MNIST Fashion Dataset was preprocessed with shiftable edges, then classified using K-Nearest Neighbors with non-linear deformation

## CERTIFICATIONS

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- **IBM Watson Badge:** Open Project Developer I, Dec. 2021
- **IBM Watson Certificate:** Applied AI Professional, Feb. 2022

## PROGRAMMING SKILLS

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- **Languages:** Python, R, C++, SQL, Haskell
- **Machine Learning Frameworks:** Tensorflow, Scikit-learn, Scipy