

# Natalie McGovern

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[GitHub.com/nnmcgovern](https://github.com/nnmcgovern)

## Education

**Manhattan College — August 2017 - July 2022**

B.S. Computer Science — Cum Laude

Tau Kappa Sigma Computer Science Honor Society Member

Association for Computing Machinery (ACM) Member

## Projects

**Eight-Queens Solver — C++**

Attempts to solve the eight queens puzzle using a randomly generated board as the initial state. Uses the Steepest-Ascent Hill-Climbing Search algorithm.

<https://github.com/nnmcgovern/8-queens-HCS>

**Tiny-C Compiler (Scanner & Parser Only) — Python**

Scanner and parser portions of a simplified C compiler. Accepts a .tinyc file as input and produces a tokens output file and a parse tree output file.

<https://github.com/nnmcgovern/tinyc-compiler>

**Binary Search Tree — C++**

Implementation of a binary tree which includes functions for adding and destroying nodes, searching, and traversing. Also capable of calculating total number of nodes, total number of leaves, and tree height.

<https://github.com/nnmcgovern/binary-tree>

## Skills

C++, Python, Java, SQL

## Volunteering

**Manhattan College**

Computer Science Tutor — Spring 2019 - Spring 2021

- Provided homework help for other students of computer science. In-person from spring 2019 through early 2020, then over Discord during the pandemic.

SWE for Scouts Workshop Assistant — Spring 2019

- Assisted in running a computer biopsy workshop hosted by the Manhattan College Chapter of the Association for Computing Machinery. This workshop was part of an event run by the Society of Women Engineers to introduce members of the Girl Scouts to different fields of engineering.

Intercollegiate Programming Contest: Greater New York Regional Staff — Fall 2018

- Assisted professors and other students in hosting the competition. Responsibilities included monitoring competitors, answering questions, and helping with any technical difficulties.