

# SHIVAM SWARNKAR

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## Education

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**New York University, Tandon School of Engineering**, – New York, NY

**Bachelor of Science**, 2018

**GPA: 3.76** (Dean's list & University Honors Scholar)

**Major:** Compute Science and Engineering

**Minor:** Business Studies (CAS & Stern)

## Technical Skills & Tools

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- Python, C++/C, MATLAB, Java, Unity3D (C#), Arduino/Flora/BS2
- Machine Learning and Deep Learning (Familiar with Scikit-learn, Tensor Flow, Numpy, Matplotlib, Pandas)
- Parallel Computing (Familiar with MPI, OpenMP and CUDA)

## Projects

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### **GitSync, Spring 2018**

A Team project to build a plugin for Sublime TextEditor, using Python 3.5, which makes Git more intuitive and easy to use for beginners. GitSync allows users to use main features of Git with simple keyboard shortcuts and menu buttons within Sublime TextEditor. Worked as the team leader for system design and implemented the interface between Git and Sublime.

### **Online Path Finding Algorithm, Spring 2017**

A Team project to develop, design, implement and analyze two new path finding algorithms based on Soft Subdivision Search algorithm. Also implemented GUI to visually control the environment and analyze algorithms. Algorithms were tested with a MATLAB disk robot simulation.

### **US-Election2016-Analysis, Fall 2017**

A personal project to analyze county results of 2016 US Election with various demographic features. Used subset regression to analyze and find patterns. Also compared prediction accuracies of Linear Regression model and DNN model. Presented and documented the findings.

### **Algo-Analysis, Spring 2016**

A personal project which allows users to visually understand and analyze the workings of path finding algorithms (A\*, Hill-Climbing, BFS & DFS). The GUI, implemented in Java, allows users to run different path finding algorithms in a customizable grid map of any size, and see how algorithm explores the map to reach the goal.

## Work History

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### **Course Assistant, Spring 2017**

**CSE Department at NYU** – Brooklyn, NY

Helped in designing coursework (exam questions, homework, mini project and in-class activities) for Intro to CS class of more than 120 students. Also held office hours and graded students' coursework.

### **Teaching Assistant, Fall 2016 & Fall 2015**

**CSE Department at NYU** – Brooklyn, NY

Taught procedural problem solving and programming with Python. Conducted Recitations, prepared exam questions, graded homework and held office hours for classes of more than 60 students.

## Awards & Leadership Activities

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- Received NYU Tandon CSE Academic Achievement Award, 2018
- Received NYU Tandon Scholarship worth \$108K
- Student Union President, 2011 & 2013