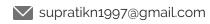
# SUPRATIK **NEUPANE**



https://supratikn.github.io

• Data Structures



in linkedin.com/in/sneupane1997

# **EDUCATION**

# State University of New York At Buffalo

Fall 2016 - Fall 2019 (Expected)

github.com/supratikn

Relevant Courses

Algorithm Design

Quantum Algorithms

Software Quality

BS in Computer Science

Dean's List

Honor's Scholar

Cumulative GPA: 3.86/4.00

Machine Learning

• Programming Languages

## WORK EXPERIENCE

# Niagra Frontier Transportation Authority, Buffalo NY

June 2018 - September 2018

ANDROID, FIREBASE. JAVA. XML Mobile Developer, NFTA Bus Stop Condition App

• Aided in surveying conditions of NFTA bus stops

• Used queries and Google Play-services to map the bus stops to precise locations.

• Used Google Firebase Database and Firebase Storage to host a server that records all the submissions, including images, made by NFTA employees through the app.

Managed a database of over five thousand entries for bookkeeping purposes.

### University at Buffalo

May 2018 - Present

RESEARCH. COQ. OCAML Undergraduate Research Assistant,

Formal Verification of Randomized Programs

Learned to use Coq to formally prove theorems and algorithms.

• Worked with Dr, Marco Gaboardi to verify randomly generated Cryptography and Security programs.

• Used Coq to verify Probabilistic Models of Machine Learning algorithms.

## **University at Buffalo**

August 2017 - Present

LEADERSHIP. TEACHING. JAVA.

Undergraduate Teaching Assistant

 Run recitations and hold office hours each week for Intro to CSE 116: Computer Science (I and II) (175-students), CSE 305: Programming Languages (80) and CSE 442: Software Engineering Concepts (15).

JAVASCRIPT. OCAML, PYTHON

- Help debug their Java/Python/OCaml code and demonstrate good coding practices.
- Run review sessions before exams and deadlines.
- Grade handwritten exams and set up auto-grader for programming assignments.
- Manage teams for group projects like a project manager and monitor the scrum board.

# PROJECTS

#### **HTML Parser/Validator**

C++, HTML

- Takes an HTML file and based on tags, spacing, titles and IDs, checks if is it a valid HTML.
- If the HTML file is valid, creates a DOM tree based on all the HTML tags

#### Language Interpreter

PYTHON. STANDARD ML

- · Built an interpreter program that takes input from a text file and stores it as a stack of commands.
- Using functional programming computed the results of these commands.

#### M.I.A.

UNITY 3D, **UNREAL ENGINE 4**   A story driven game where the protagonist is a powerful android who seeks to bring people and androids together through compassion and diplomacy instead of brute force. (Currently in the process of extending it to Unreal Engine)

#### App Store Crawler

NODE.JS. **PYTHON** 

- Starting from an app, finds a way to get to a specific app with the shortest possible page jumps by using Beautiful Soup to create a bidirectional graph and Dijkstra's algorithm to compute the path.
- Stores all the apps in a path as nodes of an undirected graph.