

# Sadip Giri

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## Education

**Bachelor of Arts**, Bennington College, Bennington, VT – *June 2019*

Areas of Study: Computer Science, Mathematics – *CGPA: 3.9/4.0*

### **Relevant Coursework:**

Deep Learning Tutorial, Software, Algorithms and Computability, Full Stack Mobile Artificial Intelligence, Design Patterns and Data Structures, Database Management Systems, Statistical Methods for Data Analysis, Bayesian Statistics, Advanced Linear Algebra, Advanced Multivariable Calculus, Discrete Mathematics, Advanced Computer Graphics, Number Theory and Cryptology, Software Engineering for the Liberal and Visual Arts

## Technical Skills

**Machine Learning:** Neural Networks; Support Vector Machines; Nearest Neighbor; Regression; Clustering

**Statistical Methods:** Time Series; Regression Models; Hypothesis Testing and Confidence Intervals

### **Software and Programming Languages:**

- **Strong:** Python(scikit-learn, numpy, pandas, psycopg2); JavaScript; R; MySQL; MongoDB; Flask; Postgresql; HTML/CSS; Bootstrap; Git; p5.js
- **Experienced:** C#; Keras; TensorFlow; Docker; Unity3D; Swift; Firebase; AWS, OpenCV, PIL

**Operating Systems:** OS X; Linux; Windows

## Experience

**Software Engineer Intern** – Vapor IO, *June 2018 - September 2018*

• Worked closely with UI/UX team on developing and testing the front and back-end of Volutus Portal, a platform to manage networks of distributed data centers. Tasks included code development, code reviews, writing and executing test procedures, tool development, and other software development activities.

**Software Engineering Intern** – NYC Train Sign, *December 2017 - February 2018*

• Collaborated with a six-member team on the next-generation rollout of train sign control software for NYC Train Sign, a tech startup based in Brooklyn, New York. Analyzed functional requirements and Integrated APIs concerned with MTA data to provide local train schedules.

**Mathematics/Computer Science Tutor** – Bennington College, *September 2016 - Present*

• Organized tutoring environments to promote productivity and learning. Assisted over 50 students of all levels with Mathematics, Statistics, and Computer Science. Provided feedback, analyzed, and debugged code (Python, JavaScript, C#, SQL, and R).

## Projects

**Image-Based Plant Disease Detection using Deep Learning** – *Fall 2018*

*Built ML model and created a general purpose API*

• Implemented and explored the performance of various Convolutional Neural Network (CNN) architectures along with the combination of Transfer Learning technique on the task of crop diseases classification from plant leaves images.

**Cryptanalysis Using Genetic Algorithm** – *Spring 2017*

*Built Cryptography Flask App*

• Developed an app to encrypt & decrypt various cryptographic systems and their cryptanalysis using Genetic Algorithm (GA)—a meta-heuristic approach that mimics the process of natural evolution to generate useful solutions to optimization and search problems.

**Developer, Git Repository Manager** – *Fall 2017*

*Developed and maintained new APIs for Auction & Sensor Workshop projects*

• Created a Python based API (RESTful Web Service) to track auction and perform auction analysis using Flask, SQLAlchemy and PostgreSQL. Developed and designed an API (RESTful Web Service) for the sensor dashboard to analyze and visualize sensor readings such as temperature, humidity, etc. using Flask and MySQL.

## Awards & Honors

• **Berkshire Community College Hack 2016, First Runner Up**

Created a location-based marketplace for taskers and taskees to collaborate in a tinder-like environment, allowing users to seek immediate help with everyday tasks.

• **Reinvent YU Hackathon 2016, Second Runner Up**

Built a dietary tracking application that allows users to track daily nutritional intake.