Sadip Giri

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EDUCATION

Bennington College, Bennington, VT   **June 2019**
Bachelor of Arts in Computer Science and Mathematics   **CGPA: 3.91/4.00**

TECHNICAL SKILLS

Machine Learning & Statistical Methods: Neural networks, support vector machines, nearest neighbor, regression, clustering, time series, hypothesis testing and confidence intervals, Monte-Carlo methods, Bayesian models, classification models.

Software and Programming Languages:
- Strong: Python(numpy, pandas, matplotlib, scikit-learn, opencv, pil), R, Flask, MySQL, MongoDB, Excel, SQLAlchemy, PostgreSQL, Git, JavaScript, HTML/CSS, Bootstrap, p5.js
- Experienced: C#, C++, Keras, Django, Docker, Shiny, NLTK, Unity3D, Swift, Firebase, AWS

Relevant Coursework

Deep Learning, Distributed Systems, 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

RELATED EXPERIENCE

AI Researcher – University of Tennessee Health Science Center   **December 2019-Present**
- Built a statistical model to successfully identify patients with Paroxysmal Atrial Fibrillation (PAF) based on their EKG as well as identify specific patterns in the QRS complex during normal sinus rhythm that is associated with atrial fibrillation using Sub-Graphs Augmented Non-Negative Matrix Factorization (SANMF) and LASSO regression.

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 Development 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 150 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**
- Implemented and explored the performance of various Convolutional Neural Network (CNN) architectures with the combination of Transfer Learning technique on the task of crop diseases classification from plant leaves images.

Cryptanalysis Using Genetic Algorithm   **Fall 2017**
- Developed a flask 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.

Auction Analysis & Sensor Workshop Project   **Spring 2017**
- Created a Python based API (RESTful Web Service) to track auction and perform auction analysis using Flask, SQLAlchemy and PostgreSQL. Developed and designed a web application for the sensor dashboard to analyze and visualize sensor readings from Raspberry Pi such as temperature, humidity, etc. using Flask and MySQL.

Diet Diary App   **Fall 2016**
- Built a web-based database-backed diet tracking application that allows users to track daily nutritional intake including the use of best practices around hashing and salting for the storing of user credentials in a relational database.