

SASHANK SILWAL

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EDUCATION

New York University Abu Dhabi (NYUAD)

Abu Dhabi, UAE

Bachelor of Science in Computer Science, GPA: 3.96

August 2019 – May 2023

Minors: Applied Mathematics, Interactive Media

Relevant Coursework: Computer Systems Organization, Linear Algebra, Probability and Statistics, Operating Systems, Intro to Machine Learning, Software Engineering (in progress), iOS Programming (in progress)

SKILLS

Python (Including Pandas, NumPy, BeautifulSoup, Keras, Pgmpy, scikit-learn), JavaScript, React.js (Including Hooks, Routers, Axios), Node.js (Express), HTML, CSS (Including Bootstrap 4), C++\C, MongoDB, Swift, Firebase

Miscellaneous: LaTeX, Git, Arduino, Figma, XD

EXPERIENCE

Center For Global Sea Level Change

May 2021 – August 2021

Machine Learning Researcher

Remote

- Built an open-source machine learning model by considering 16 million data points for evaluating the likelihood of inundation or dynamic response to sea-level rise; currently adopted by the lab on their app for research purposes
- Recommended alternative solutions and best practices to the team, suggested **Bayesian network architecture** was then adopted by the management team
- Made the model dynamic to handle data provided in various formats by automating preprocessing to ensure easy use when deployed.

New York University

Student Assistantship, Web Developer

September 2020 – May 2021

- Migrated, restructured, and managed NAACP Julius E. Williams Distinguished community service award-winning website (aacvr-germany.org) to **WordPress** by using automation tools
- Incorporated Google Analytics to capture pertinent metrics and created custom reports on a regular basis
- Increased website page speed load performance by 30% (Based on Google Page insights)
- Utilized **Figma** for prototyping and understanding instructions on page creation requirements of the website.

Cyber #

January 2020 – May 2020

Web Developer

Abu Dhabi, UAE

- Designed and produced the first version of the website for the SIG on time using Twitter **Bootstrap**
- Tested site compatibility for multiple browsers/devices; debugged issues to address experience inconsistencies
- Ensured accessibility and inclusivity of the website for a diverse student body incorporating color-blind friendly design
- Delivered bespoke website features of website compatible with top browsers, including Firefox, Chrome, and Safari.

PROJECTS

DYOR (<https://github.com/software-students-fall2021/project-setup-dyor>)

MERN stack

- Developed web application to help users better understand the crypto space by incorporating features like sentiment analysis, price prediction, and easy to access coin portfolio
- Built back-end **REST API** in **Express.js**, and served **MongoDB** data to custom-built React application through **React Routers** with **Axios**; Implemented **JWT authentication**

iOS Parstagram (<https://github.com/sashanksilwal/Parstagram>)

Swift, Cloud Storage

- Created an Instagram-like app using **Swift** that allows users to take and post pics. Utilized a custom backend database using Parse to store and retrieve user posts.

Face Mask Detection using transfer learning (<https://github.com/sashanksilwal/FaceMaskDetection>)

CNN, OpenCV

- Developed a complete face tracking and face mask detection solution to monitor mask guidelines violations in real-time
- Tuned hyperparameters and added regularization on the **convolutional neural network** to achieve an accuracy of 90%.

Mapping the Networks of Voltaire's Philosophical Dictionary (<https://git.io/J67cA>)

Python, NLTK

- Analyzed the keywords in the dictionary, using standard **NLP** techniques of **POS tagging**
- Modeled graphs using **Matplotlib** to measure the social network analysis metrics.

VOLUNTEERING & LEADERSHIP

Vice President of HackAD

January 2021 – May 2021

Python Tutor (Budhanilkanth Education Services)

August 2020 – January 2021