ARNAV NIDUMOLU

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SUMMARY

- Internship for two summers with Red Hat for a Medical analytics project with Boston Children's hospital
- Computer Science Major at University of Massachusetts Amherst's class of 2025
- Won the "Best Cloud Hack" award for ML-based Smart Notes project in HackPHS 2019; finalist in HackWHS 2019
- Successfully delivered two web development and Machine Learning projects on Freelancer.com
- Presented (Open Source ML tools & Application of Math in AI) at a webinar organized by Rustamji Institute of Technology - India
- Experience in using Machine Learning modules, including NLTK, Scikit-learn, Pytorch, and Keras
- Comfort with standard SDLC tools like version control system (git), GitHub code review, Jenkins & Travis CI/CD

EDUCATION

BASKING RIDGE HIGH SCHOOL, GPA 4.31/5 **Graduation'21**

SAT Superscore 1510/1600 with Math 800/800; SAT Chemistry 790/800; SAT Math 2 800/800

Relevant Coursework: AP Computer Science A, Honors Cyber Security, Robotics I & II (A+ grades in all technology subjects)

UDEMY COURSES

* Python & Ethical Hacking from Scratch * Machine Learning A to Z * Basic to Advanced Python

WORK EXPERIENCE

RED HAT, Boston, MA **Jun'19 - Aug'19 June'20 - Aug'20**

Research Intern, ChRIS Project (https://chrisproject.org/about)

- Participated in the implementation of the ChRIS project. The goal of the project is to build a next-gen medical image processing platform using the compute infrastructure of MOC (Mass Open Cloud)
- Designed monitors to measure system performance and created controls for taking corrective actions in an automated manner
- Enabled a faster runtime for the Image detection Proof of Concept by exploiting GPU capabilities with Tensorflow
- Ensured more scalable and reliable services by enhancing multithreading capabilities and identifying potential deadlock scenarios
- *Technologies used: Linux, Jenkins, Python, Docker, OpenShift, OpenStack*

FREELANCER.com, New Jersey, NJ **April'20 – May'20**

Project ID: #25018158

- *Background Removal Service*: Automatically detects and removes the significant object from the picture using image computations. Superimposes a person or animal on different backgrounds
- Deployed the service using Gunicorn on Digital Ocean
- *Technologies used: Linux, Flask, OpenCV, Pytorch, Numpy*

HACKATHONS & PROJECTS

SMART NOTES

https://arnavn101.github.io/ (https://github.com/arnavn101/NotesCreator)

Presented at HackPHS (Awarded Best Cloud Hack)

- Creates concise summaries and fetches the main topics of the text by applying Google's Page Rank algorithm
- *Technologies used: Flask, Heroku, NLTK, Google Speech Recognition, FFmpeg*

STOCK PREDICTOR

https://github.com/arnavn101/StockPredictor

- Utilizes past patterns of individual stocks to predict their future values with recurrent neural networks
- *Technologies used: Flask, Keras, SciKit Learn, Pandas, Plotly*

PATH FINDER

https://github.com/arnavn101/Path_Finder Presented at HackWHS (Finalist)

- Uses artificial neural network to recommend an optimized college path for students based on their skills and academic record
- *Technologies used: Flask, Keras, SciKit Learn*

COVID-19 CONTACT TRACING

https://github.com/arnavn101/cotrackerApp & https://github.com/arnavn101/cotracker

- Effectively "tracks" individuals' proximity to each other throughout the day in order to trace a potential virus spread
- *Technologies used: Flutter, Flask*

STOCK-TRADING BOT

https://github.com/arnavn101/stockInvestorbot

- Parses Reddit, Twitter, and News Articles for Stocks News, then trades virtually according to Market Sentiment
- *Technologies used: NLTK, Pandas*

VOLUNTEERING

- Bernardsville Library contributing to Tech teen initiative and supporting active adults with electronic service (2018-2019)
- Bread of Life serving food to the homeless (2016-2020)