hello

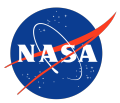
Rahat Maini

call/text 407-766-0001
email rahat@virginia.edu

What I do

I'm Rahat and I love engineering. I have 4+ years of programming and hardware engineering experience. My specific interests include data analytics, machine learning, web design, mobile app development, UI/UX design, and product design. These passions have led me to pursue a career in which I can continue to service people via creative work that intersects technology and design.

Where I've worked



Big Data Analytics/Visualization Intern at NASA (Jun 2019 - Present)

• Due to suspicions on the effectiveness of an FAA utility deployed at 41 large airports aimed to ease congestion, developed a Python tool to perform statistical analyses on large flight datasets stored on NASA Sherlock Data Warehouse to assess utility of said FAA utility (known as TBFM).
• Python tool deployed on Jupyter Notebook and accessible to NASA employees today, extracts multi-gigabyte sized TBFM data logs and IFF flight data, filters/parses it down to 1/100th of the disk space, performs statistical analysis using NumPy and Pandas, classifies the results through K-Means Clustering in Scikit-learn, and visualizes those results through Matplotlib and BI tools such as Microstrategy.
Check it out: github.com/rahatmaini/TBFM-Data-Analyzer

Educational Software Research at UVA (Sep 2018 - May 2019)

• Full stack development for tool to allow instructors to monitor student engagement in the classroom (captured via in-class cameras and microphones).
• Designed UI/UX mockups in Figma and translated to front-end using HTML, CSS, and JavaScript.
Check it out: github.com/rahatmaini/Observation-Tool

Drone Based Ecology Research at UVA (Jan 2017 - Jan 2019)

• Developed Python application to obtain and analyze satellite imagery in order to track seasonal variation in the vegetation of a UVA-owned forest.
• Programmed UAV flight paths and computer vision algorithms for autonomy and tree canopy study using DJI Drone SDK.
Check it out: ecors.evsc.virginia.edu/research

What I know

Languages

Python, SQL, C++, Java
HTML, CSS, JavaScript

Tools/Frameworks/Libraries

React
Apache Spark + Microstrategy BI
Jupyter Notebook
Numpy, Pandas, Matplotlib, Scikit-learn, OpenCV

Where I study

School of Engineering and Applied Science

BS in Computer Science

May 2020 Graduation

What I'm working on

A calculator with WolframAlpha integration. A hat that uses AI to takes the best photos for you. A gesture-based home control assistant. All of Wikipedia inside a small hardcover book. And a self-destructing payphone that lets you order pizza.