Rahat Maini

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What I do

I'm Rahat and I love engineering. I have 4+ years of programming and software 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

Software Engineering Intern at NASA (Jun 2019 - Present)
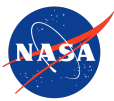
• Developed Python tools to perform statistical inference on large flight datasets stored on NASA Sherlock Data Warehouse.
• Automated multi-gigabyte extraction and filtration of TBFM data logs to 1/00th of original disk space, performed analytics using NumPy and Pandas, classified results using K-Means Clustering, visualized through Matplotlib and Microstrategy/Tableau.
• Deployed on Jupiter Notebooks that are accessible to NASA employees today.
Check it out: github.com/rahatmaini/TBFM-Data-Analyzer

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

• Full stack development of 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, C++, SQL
HTML, CSS, JavaScript, PHP

Tools/Frameworks/Libraries

Django, Docker, Node.js, React
Jupyter Notebook + Apache Spark + Microstrategy/Tableau
NumPy, Pandas, Matplotlib, SciPy, OpenCV

Where I study

UNIVERSITY of VIRGINIA

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 lamp that can scan your handwriting and transcribe lecture audio. All of Wikipedia inside a small hardcover book. And a self-destructing payphone that lets you order pizza.

more at rahatm.com