# Rahat Maini

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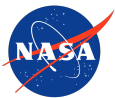
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# What I do

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

**Tools/Frameworks**

React
Electron
Apache Spark
Jupyter Notebook

# 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.

more at rahatm.com