

Raine Brookshire

Houston, TX | 832-607-5324 | [Email](#) | [LinkedIn](#) | [Portfolio](#) | [GitHub](#) | [Interests](#)

EDUCATION

Dartmouth College

Hanover, NH

Bachelor of Arts (Honors) Data Science; minor in Astrophysics

Sep. 2021 – Jun. 2025

- Physics Society, Dartmouth Undergraduate Journal of Science ([DUJS](#)), Dartmouth Tech Consulting Group (DTCG), [DPL](#)

WORK EXPERIENCE

Fair Tech

Charlotte, NC / Remote

Business Data Analyst → Data Scientist

Oct. 2025 – Present

- Collected external data using MySQL and GCP APIs; conducted regulatory dashboard reporting in Power BI
- Executed A/B tests across **10** vignette ads, optimized quote flow, and reduced landing page bounce rate (**82%** to **65%**)
- Supported **4.3x** YoY growth with **94%** retention rate; presented MoM reports noting an average **25%** traction increase
- Collaborated cross-functionally with SWE team and developed ad-hoc analytical dashboard views in Excel & Datadog

Origo

San Francisco, CA

Data Scientist

Sep. 2024 – Sep. 2025

- Web scraped **500+** models in Python with BeautifulSoup library; hosted interactive model on Streamlit app via GitHub
- Applied **3** Convolutional Neural Networks (CNNs), decision trees, and regression models ($R^2 = \mathbf{0.71}$, $\mathbf{0.817}$, and $\mathbf{0.582}$)
 - Used CNN1 to classify **3k** labeled origami models (e.g. dragon, fish); achieved **71%** accuracy and **68%** recall
 - Implemented CNN2 over **15** epochs to classify origami images into **3** difficulty groups (easy: **0**, intermediate: **1**, complex: **2**); achieved a final validation accuracy of **63%** and a **0.79** loss on **1900+** origami images
 - Trained CNN3 to classify **10k+** origami (**1**) and non-origami images (**0**) with a validation accuracy of **95.2%**

Project Manager

Nov. 2023 – Jun. 2024

- Spearheaded a team of **7** to help capture the **\$250M** origami market experiencing a CAGR of **6.5%**
- Performed a go-to-market strategy and amassed **15k+** impressions and **8k+** views upon product soft launch
- Built (React) landing page and content strategy based on market research; launching app and enabling user data tracking

The Home Depot

Remote

Business Intelligence Analyst

Summer 2024, Summer 2025

- Conducted customer segmentation and developed predictive churn model in Python; improved customer lifetime value
- Interpreted data in SQL and identified trends in Power BI, resulting in a **10%** increase in user retention

Kino Fitness

Hanover, NH

Data Consultant → Machine Learning Engineer

Summer 2023, Winter 2024

- Tuned hyperparameters of 3D Skinned Multi-Person Linear (SMPL) model in AWS to evaluate athlete muscle dimensions
- Applied root cause analyses (RCA), process improvements, and helped the Kino startup achieve a revaluation of **\$2M**

RESEARCH EXPERIENCE

Dartmouth College

Hanover, NH

[Texas Renewable Energy](#) (Python, Mathematica, Game Theory)

- Modeled tax incentives (**T**) in Python based on the costs of solar energy (**C_s**), wind energy (**C_w**), fossil fuel energy (**C_f**)
- Analyzed tax incentive shifts (**30%**→**35%**, **50%**→**55%**) on Evolutionary Stable Strategies (ESS) in the energy market

[SpaceX Analytics](#) (HTML, JavaScript, CSS)

- Collected Starlink satellite and Falcon 9 launch data (**2010–2022**) and visualized launch metrics in Three.js
- Visualized 3D models and KPIs on Falcon 9 landing outcomes; measured Starlink efficiency (**86%** out of **2091** satellites)

[Quasars & Stellar Formation](#) (LaTeX, Jupyter Notebook)

- Conducted high-resolution spectral analysis of quasar 2QZJ002830.4-281706 at redshift $z = \mathbf{2.4}$ using VLT-SINFONI near-IR data; synthesized experimental data (**2k+** spatial spectra per observation) to investigate AGN mechanisms
- Analyzed data from IRAM PdBI telescope on quasar J1148+5251 ($z = \mathbf{6.42}$); identified [C II] **158 μm** emission line wings

AWARDS

SKILLS

- Honors Distinction for Data Science Thesis
- Featured in [Houston Chronicle](#) News (2021)
- [QuestBridge](#) National Match Scholarship (2021)
- **3rd** – Ivy League Chess Cup, Yale University
- **1st** – Powerlifting Inter-Ivy Cup, Albany, NY
- **Data Science:** Data Mining, Statistical Analysis, Trend Forecasting
- **Full-Stack Development:** Git, D3.js, React, Node.js
- **Business Analytics:** R, Power BI, Looker, ArcGIS Pro, HubSpot
- **Data Analytics:** Python, Excel, MySQL, DataDog, Big Query
- **Data Engineering:** Apache (Spark, Airflow), AWS, Databricks, ETL