Mehika Patel
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EDUCATION

Yale University, New Haven, CT Dec 2022
*Sociology with Statistics & Data Science***,** GPA: 3.82
Relevant Coursework: Machine Learning, Probability Theory, Data Engineering, Information Systems
Awards: *Mildred Priest Frank Memorial Prize* for Thesis work (under projects)
Cohen Summer Fellowship awarded to fund data science research and data system development at nonprofit

PROFESSIONAL EXPERIENCE

Up & Up, *Data Scientist (Intern)*, New York, NY May - Aug 2022
- Designed full data pipeline, ML model, and framework optimized to find high-potential neighborhoods for investment
  - Modular & scalable build integrating several data sources (*Google Maps APIs, Yelp API*, BigQuery, *etc.*) with automated tuning per market (currently 4) and per stakeholder (4 teams) built using scikit-learn, Clustering, Regression, Time-Series & Spatial analysis *(presentation available at mehika.upandup.co)*
  - Facilitates expedited and successful investing in new real estate markets, and customer acquisition by providing optimal real estate options, with little-to-no local knowledge
  - Feature engineered location "diversity metric" for model using Kullback-Leibler divergence
- Collaborated on building company global dashboard with construction team's 6 identified key performance metrics
  - Reduced dashboard run costs & time by aiding transition to standard data modeling ETL practices using dbt
- Built route optimization algorithm to cut property managers' travel time between work sites by 2-8 hours/week

Freelance *Technical Instructor* Jan 2022-Current
- Provide technical training *(coding, data science, ML, math & statistics)* to professionals at Fortune 500 companies such as Microsoft for individuals and groups of 20+ students of all ages *(9-52)*

Detect, *Computer Science Intern*, Guilford, CT Jan - May 2022
- Created data visualization tool for R&D team to facilitate development of at home PCR-quality COVID-19 tests saving researchers ~20 minutes/test and additional time avoiding technical hurdles of manual coding analysis

Yale Physics Department, *Machine Learning Fellow*, New Haven, CT Jan - May 2022
- Tested & improved Baryon Pasting neural net model (probes nature of dark matter in clusters 25k+ light years away)
- Implemented graphical user interface on GCP VM to host model with increased accessibility and model usage for scientists outside of Yale, saving 30-40 minutes on average in package install time

Consumer Credit Counseling Services, Savannah, GA
Data Science & Data Systems Architect Fellow Jun - Aug 2020, Jun - Dec 2021
- Automated reporting infrastructure inside dashboard with features such as survey management, data analysis, and up-to-date report generation on client feedback and outcomes for 500+ clients (GCP APIs & cloud functions
- Analyzed efficiency of business services, suggesting improvements on product deficiencies and new marketing decisions in client communities

Data 2 the People, *Data Science Fellow*, New Haven, CT Jun - Aug 2021
- Delivered data collection solution by identifying quantifiable key performance metrics for stakeholders in 8 weeks used for informed operational decision making
- Developed web-based interactive data visualization using D3.js used for fundraising in local community

PROJECTS (ADDITIONAL AVAILABLE ON PORTFOLIO ABOVE)

- **Natural language processing of breast cancer patient forums** to provide experience-oriented approaches to care
  - Senior thesis project scraping & topic modeling patient forum data (NLTK, GenSim, SpaCy, scikit-learn)

SKILLS AND INTERESTS

Languages: Python, SQL, JS, R
Technologies: MongoDB, Cloud Computing (Google Cloud), PowerBI, Tableau, Web Scraping
Stats: A/B Testing, Significance testing, Supervised & Unsupervised Learning
Packages/Libraries/Frameworks: Pandas, Numpy, Scikit-learn, TensorFlow, Keras, dbt, React, Bokeh, Matplotlib
Interests: Music (Guitar & Dance), Martial Arts (Shotokan Karate)