

Raj Shah

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EDUCATION

Carnegie Mellon University – Pittsburgh, PA

Master of Science, Data Science and Public Policy

Graduating May 2025

Relevant Courses: Immediate Econ, Data Analysis for Organizations, ML Foundations, Econometrics, Storytelling with Data, Management Sciences

University of Florida – Gainesville, FL

Bachelor of Science, Computer Science, Minor in Mathematics

Graduated May 2020

Relevant Courses: Advanced Algorithms, Fourier Analysis, AI for Games, Databases, Probability Theory, Data Science

PROJECTS

Disproving the NBA Contract Year Phenomenon

Dec 2023 - Present

- Scraped and cleaned several datasets to identify player performance metrics in relation to free agency status.
- Utilized Seaborn and Pandas in Python alongside Tableau for initial visualization and data analysis.
- Developed an interactive data journalism article using Photoshop, Flourish, and React.

Research: Triage Development – Carnegie Mellon University

Oct 2023 - Present

- Contributed to open-source Python tooling designed to build and evaluate ML systems for policy problems.
- Developed feature sets and unit tests to ensure ML models and bias ratings were interpretable for users.

Data Science for Social Good – University of North Florida

May 2020 – Aug 2020

- Lead a team of three to analyze data for 6000+ adult learners being helped by literacy services in Florida.
- Utilized methods such as Z Scoring for score comparisons and Gower Method for clustering demographics.

QuikVote – University of Florida Hackathon

Feb 2020

- Developed a React website to provide a “FastPass” system for users on voting day, reducing wait times.
- Hosted a Bayesian estimator on AWS Lambda to predict wait times per precinct and determine pass quota.

WORK EXPERIENCE

Startup: Ray Analytics – Washington, DC

Chief Technology Officer

Dec 2022 – July 2023

- Developed a SaaS Platform capable of on-demand political discourse analysis and influence identification.
- Trained and deployed a Random Forest algorithm to classify users based on tweet patterns and metrics.
- Utilized D3.JS and React to develop an interactive dashboard with sentiment analysis for 20+ customers.

Startup: Plainspoken Digital – Washington, DC

Senior Software Engineer

Mar 2022 – Dec 2022

- Oversaw digital technology transformation for client by leading a development team of 7 to work in Agile processes.
- Utilized PySpark and SQL in Palantir Foundry to develop new pipelines and increase client op efficiency by 250%.

Amazon Web Services – Washington, DC

Software Engineer

Nov 2021 – Mar 2022

- Lead design and implementation of S3 Encryption by Default, bolstering security for billions of daily requests.
- Managed DevOps pipelines for S3, a codebase with 100+ contributors, reducing feature deployment by several days.

Junior Software Engineer

Oct 2020 – Nov 2021

- Developed features, unit tests, and integration tests in Java to be deployed on S3’s Apache Tomcat WebServer.
- Performed analysis on big data samples to analyze customer latency using Pandas and Seaborn.

Booz Allen Hamilton – Washington, DC

Software Engineer Intern

June 2019 – Aug 2019

- Developed with a team of 5 a program capable of discerning between media generated by AI and real images.
- Programmed a CNN with TensorFlow, utilizing custom layers and transfer learning, and deployed with SageMaker.

SKILLS

- Proficient in AWS, experience with Azure and GCP. Knowledge in Python, Java, React, C++, SQL, and GraphQL.