

PRAPHULLA BHAWSAR

Data Engineer / Full Stack Developer

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Education

- **MASTER OF SCIENCE** | *New York University Tandon School of Engineering, NY* AUG 2017 - MAY 2019
Major: Computer Science / Data Science
- **BACHELOR OF ENGINEERING** | *University of Mumbai, India* AUG 2011 - JUN 2015
Major: Computer Engineering

Experience

- DATA ENGINEER** | *National Cancer Institute, Rockville, MD* MAR 2019 - Present
 - Part of the Data Science team at the Dept. of Cancer Epidemiology & Genetics working to employ deep learning on the edge for data analysis in cancer research. Currently working on a platform to facilitate annotation and active learning in digital pathology.
 - Designed dashboards for tracking excess mortality as a result of COVID-19 using real-time data put out by the CDC.
- LEAD DEVELOPER** | *NYU Student Tech Innovation, NY* SEP 2017 - MAR 2019
 - Led the development team of the Student Tech Innovation team at NYU to create innovative applications for the NYU community.
 - Spearheaded the development of an intelligent chatbot using Elasticsearch and Google's Dialogflow engine, to serve as an interactive, easy-to-use interface for students to get their queries answered from the NYU knowledge base.
- FULL STACK DEVELOPER** | *Reliance Jio Infocomm Ltd., India* JUN 2015 - JUL 2017
 - **JioTV:** Lead backend developer for the JioTV2.0 live TV streaming application, currently used by over 100 million people in India. Provided support for multiple application platforms, including Android, iOS, AppleTV, Tizen, feature phones, smart TVs and STBs.
 - **JioXpressNews:** Part of a 4-member team that undertook a complete overhaul of the backend for the JioXpressNews mobile app. Developed an RSS feed crawler and web scraper to collate news articles for the application using Mozilla's Readability library.
 - **Research Projects:** Designed several PoCs as part of the core R&D team, including JioTrack, a fleet tracking application in React Native and Node.js; JioWall, a web app to display photos shared on social media in real time, and others.

Academic Projects

- **Galaxy Morphology Classification Using CNNs:** Trained a VGG-19 CNN using the Keras API to classify galaxies by morphology from raw sky survey images. Compared the performance of an uninitialized model to one that was trained on another dataset first, demonstrating the advantages of using Transfer Learning on sparse astronomical datasets.
- **Rock-Paper-Scissors with AI:** Designed a rock-paper-scissors game against an AI. Performed contour detection and feature extraction on webcam feed, followed by real-time gesture recognition using an SVM
- **DisTwitter:** Developed a simplistic Twitter clone to run on a distributed architecture with Golang and Protobufs. Integrated a rudimentary file-based database using Viewstamped Replication, along with a neat front-end in React.

Publications

- Almeida, J. S., Shiels, M., Bhawsar, P., Patel, B., Nemeth, E., Moffitt, R., Closas, M. G., Freedman, N., & Berrington, A. (2020). [Mortality Tracker: the COVID-19 case for real time web APIs as epidemiology commons](#). Bioinformatics.

Technical Skills

Languages & Frameworks : JavaScript, Node.js, Python, Golang, TypeScript, ReactJS, HTML, CSS, PHP

Libraries, Databases et al.: TensorFlow, TF.js, Keras, PyTorch, SQL, MongoDB, Elasticsearch, Redis, Couchbase, Firestore, BigQuery, Tableau, D3.js, Plotly.js, Nginx