

# KURRA BAVANYA CHOUDHRY

Github: [github.com/bavanya](https://github.com/bavanya)

Email: [bavanyacseitbhu@gmail.com](mailto:bavanyacseitbhu@gmail.com)

## EDUCATION

- **Indian Institute of Technology, Banaras Hindu University** Varanasi, India  
*Bachelor of Technology - Computer Science and Engineering; GPA: 8.76* *July 2018 - June 2022*  
*Courses: Data Mining, Computer Vision, Artificial Intelligence, Data Structures, Algorithms, Operating Systems, Computer Architecture, Theory of Computation, Discrete Mathematics, Database Management System, Compiler Design, Probability & Statistics.*

## SKILLS SUMMARY

- **Languages:** Python, C, C++, JAVA, JavaScript, Bash, SQL, MIPS Assembly
- **Frameworks:** TensorFlow, Keras, PyTorch, NLTK, SpaCy, Scikit-learn, SpringBoot, Flask, NodeJS, VueJS
- **Operating systems:** Linux, MacOS, ChromeOS, Windows
- **Applications:** Apache Spark, Apache Hive, GCP, Heroku, Presto, Git, Postman
- **Soft skills:** Event Management, Writing, Public Speaking

## EXPERIENCE

- **Uber Technologies, Inc.** Remote (Full Time - 45 Hrs/Week)  
*Software Developer Intern* *31st May 2021 - 23rd July 2021*
  - **Test-Driven Development:** Built and deployed a pipeline with a rule engine that extracts the inconsistent locations monthly from the places database.
  - **Big Data Analytics:** Performed big Spatio-temporal data analytics and drew insights on inconsistent locations from trips (on the scale of millions).
  - **Impact:** Improved the user search experience and quality of the automated places creation process at Uber.
  - **Tech:** Spark RDDs, Spark SQL, HDFS, Drogon, Piper, Hive SQL, Presto SQL, REST APIs, Postman, Java, Python.
- **Wikilimo Inc.** Remote (Full Time - 45 Hrs/Week)  
*Machine Learning Engineer Intern* *7th December 2020 - 17th January 2021*
  - **Test-Driven Development:** Built end-to-end scriptable deep learning systems to forecast wildfire spread(throughout the globe) using the features derived from the Soil Moisture and Ocean Salinity (SMOS) satellite.
  - **Data Mining:** Performed exploratory data analysis, map visualization, extensive preprocessing and built different machine learning and deep learning models on 600GB data to predict wildfire spread. Also, visualized and evaluated the predictions.
  - **Remote Systems:** Development was done on remote high-performance computer clusters.
  - **Tech:** PyTorch, PyTorch Lightning, Weights & Biases, Python, Dask, Xarrays, Numpy, Speed optimized Pandas, Matplotlib, Scikit-learn, Google Cloud.
- **Google LLC.** Remote (Full Time - 45 Hrs/Week)  
*Software Engineer Intern* *18th May 2020 - 26th June 2020*
  - **Test-Driven Development:** Developed a platform for the shop owners to manage their customer flows in the retail operations and the customers to wait remotely in virtual queues for their turn to shop.
  - **Virtual Queues Implementation:** Designed the application to handle high user traffic and included the real-time updates functionality.
  - **Tech:** VueJS, Spring-boot, Java, REST APIs, Postman, Axios HTTP Client, Cookies, Real-time Web page updates, JSON, InMemory database.

## PROJECTS

- **Software Bug Count Prediction (NLP, Deep Learning, Abstract syntax trees, Object-Oriented metrics):**  
Research oriented, Open source, Deep Learning systems to predict the count of bugs in software projects using the keywords derived from the Abstract Syntax Trees of the programs and Object-Oriented metrics.  
Exposure: TensorFlow, Keras, Python, Model Ensembling, Outlier Detection, Regression, Preprocessing, Numpy, Pandas, Matplotlib. (January '21 - November '21)
- **Time Series Forecasting of Covid Cases in India (Forecasting, Map Visualization):** Research oriented, Open source, Empirical study on different machine learning, deep learning and statistical techniques to forecast India's positive covid test results for the next month.  
Exposure: PyTorch, Scikit-learn, Numpy, Pandas, JSON, Plotly, Pycountry, Matplotlib. (August '20 - December '20)
- **Manufacturing Unit Management System (Database Management and Design):** Open source, Platform for the owner of a manufacturing unit to manage the inventory, raw materials, projects and purchases, and the employee, client and supplier profiles. The application also tracks the monetary transactions and intricate details of employees' involvement in the tasks and transactions.  
Exposure: Java, Database design, Postgresql, Springboot, API development, Front-end development, Heroku. (August '20 - December '20)

- **Generation of GraphML for a provided Graph (Low Level System Design, Graph Theory):** Open source, An application that visualizes the provided graph and generates a file in GraphML format extracting the information of the graph's nodes and edges.  
Exposure: Python, Networkx library, XML formats, Flask, Unit testing. (January '21 - May '21)
- **Image Search Engine (NLP, Computer Vision, Deep Learning, Data Structures):** Open source, Ongoing, A search engine that performs an image search to display the most relevant images by comparing the similarity in the description of the images. Currently extending the project by developing a deep learning pipeline which generates descriptions of unseen images.  
Exposure: Tensorflow, Keras, Numpy, Pandas, SciPy, Transformers. (Since August '21)

## ACHIEVEMENTS

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- Selected for the Microsoft virtual mentorship programme in 2020.
- Secured an All India Rank 1423 among 1.55 lakh students appeared in IIT JEE ADVANCE 2018.
- Secured an All India Rank 2816 among 10.74 lakh students appeared in JEE-MAINS 2018.
- Secured State Rank 83 in Telangana among 1.36 lakh students appeared in EAMCET 2018.
- Secured State Rank 414 in Andhra Pradesh among 2 lakh students appeared in AP EAMCET 2018.
- Published articles in the Kashi Utkarsh Newsletter 2019 issue.