VIKRAM BADHAN

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EDUCATION

New York University, New York, NY ***Sep '21 – May '23***
Master of Science, Computer Science

Guru Gobind Singh Indraprastha University, New Delhi ***Aug '14 – May '18***
Bachelor of Technology, Information Technology

EXPERIENCE

Indus Communities ***Aug '24 – Present***
Data Analyst Houston, TX

- Automated **150K+** invoice downloads from **Entrata** using **Selenium & Puppeteer**, reducing manual effort by **95%** and improving financial reconciliation accuracy.
- Developed **RealPage API integrations** to automate data exchange, optimizing the renewal process for lease expirations and reducing lease processing time by **40%**, while streamlining utility billing for **38+ properties**.
- Led a **Market Data Analysis** project using **ApartmentIQ** to evaluate rent prices, fees, and amenities, shifting to a data-driven pricing strategy that improved rate-setting efficiency by **25%** and increased revenue potential by **10%**.

One Community Global ***Aug '23 – June'24***
Software Engineer San Gabriel, CA

- Developed and optimized an internal **Time Tracking web application** with **React**JS and **NodeJS**, resulting in a **30%** increase in work efficiency and enhanced user experience while accurately tracking time and work activities.
- Achieved a **20%** reduction in deployment time by actively managing and optimizing the **CD/CI** pipeline through **Jenkins**.
- Spearheaded comprehensive unit testing with **Jest**, orchestrating a remarkable **30%** decrease in project bugs. Seamlessly integrated automated test class executions through **GitHub Actions**.

New York University – IT Department ***May '22 – May '23***
Software Engineer Manhattan, NY

- Implemented a seamless migration to **NoSQL** database, optimizing **ETL** processes and boosting developer efficiency by **70%**.
- Implemented advanced data modeling with **Python**, **Pandas**, and **SQL**, alongside data warehousing techniques like **Snowflake**, resulting in a **30%** improvement in data accuracy and accessibility.
- Leveraged this data to create visualizations having multiple capabilities (like filtering) and automated this process which ultimately reduced the effort required to extract/read data by **30hrs/week**.

New York University – Department of Civil and Urban Engineering ***Feb '22 – May '22***
Software Developer Brooklyn, NY

- Developed a cutting-edge application utilizing **ReactJS's ThreeJS** library to render and visualize complex BIM (Building Information Models) models, resulting in a **40%** reduction in rendering time compared to previous methods.
- Utilized **Python's IFCopenShell** library and **React-Three-Fiber** renderer to efficiently parse and extract over **3000** mesh components from BIM models, improving data processing speed by **40%.**
- Mapped the mesh components with the BIM model to dynamically show highlights, annotations, and text overlay on a selected group of meshes.

Innefu Labs ***July '20 – Aug '20***
Business Analyst New Delhi, India

- Utilized the Big Data framework "**Prophecy**" to conduct text analysis, image analysis, and predictive intelligence for law enforcement clients, resulting in a **30%** increase in efficiency in identifying potential threats.
- Collaborated with client and developer team to gather requirements, resulting in a **20%** reduction in development time.

PROJECTS

AWS Smart Health App (Link)| STACK - S3, Lambda, JavaScript, Python, DynamoDB, OpenSearch, Sagemaker

- Developed a **JavaScript** based online meal recommendation and food delivery app that suggests meal to users based on their nutritional goals.
- Utilized an online food dataset which included meals with their nutritional values to train a machine learning model which gave us customized meal plans for the users to choose.

Dining Concierge Chatbot using AWS (Link)| STACK - S3, Lambda, Lex, SNS, SQS, Python, JavaScript, DynamoDB, OpenSearch

- Developed an AWS Lex Chatbot that recommends restaurants in New York City. Scraped data from Yelp, indexed the results using OpenSearch and stored the data in DynamoDB.
- Deployed Lambda function to interpret chat inputs and send recommendations to the user's phone using SNS.

Qatar 2022 World Cup Predictor (Link)| STACK – Python, PySpark, Kafka, SparkML

- Conducted in-depth data analysis on FIFA World Cups (2015-2022) and built predictive models (**Random Forest**, **XGBoost**) to forecast team performance and match outcomes for Qatar 2022, achieving R^2 scores as low as 0.144.
- Predicted player market values, wage trends, and potential retirements to identify top players for club signings.

TECHNICAL SKILLS

- **Languages:** Java, Python, JavaScript, HTML, CSS
- **Frameworks:** Node.js, Express.js, React.js, Three.js, D3.js, Selenium, Puppeteer, Spring Boot, REST, React-Three-Fiber
- **Database / Tools:** MySQL, MongoDB, Redis, Postgres, Git, PySpark, Kafka, Jenkins, Postman, AWS, Kubernetes, Docker