

Rajorshi Tah

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PROFESSIONAL EXPERIENCE

Software Developer | Accenture | Tokyo, Japan

May 2022 - Present

UI Automation Dashboard

Led development of the backend of an Automated Test Tracking Dashboard for a Japanese tech client, architecting a RESTful API integrated with Robot Framework to optimize workflow execution, managing and analyzing the results of **30,000 test cases** daily.

- Designed backend architecture of a UI dashboard with **Node.js** and **MongoDB**, developing **100+ scalable APIs** for optimal performance.
- Developed APIs for **role-based access** management and **OAuth 2.0** based authentication using JWT tokens for **70+ team members**.
- Enabled API documentation using **Swagger** and used **Docker** to containerize the app, finally deploying in an **AWS EC2 instance**.
- Created automation scripts with **Robot Framework**, achieving a **90% reduction** in testing time and increasing testing efficiency.
- Integrated UI testing automation scripts with dashboard using Robot Listener, enabling **real-time** tracking and reporting of test failures.
- Led a team of **4 developers** while coordinating with **2 sister teams**, demonstrating strong leadership and collaboration skills.
- Tech:** Node.js, MongoDB, Python, GO, Docker, Robot Framework, Jira, AWS

HTML Locator Gen AI Application

Delivered a GenAI Application for generating locators in HTML/XML pages by integrating RESTful APIs for data retrieval and processing, refining prompts, and deploying the solution on AWS Cloud handling around **5000+ requests** daily used by **20+ testing teams**.

- Leveraged **Flask** for back-end architecture & **PostgreSQL** for database management, while deploying in **Docker** to ensure scalability.
- Implemented **Agentic RAG** using **Llama Index** to enhance dynamic retrieval and reasoning generating **87% accurate** HTML/XML locator
- Created a data collection and preprocessing pipeline generating embeddings for optimized storage in a **ChromaDB** vector database.
- Utilized **LoRA tuning** with the **Transformers** library to finetune open-source LLMs, while enhancing locator generation **accuracy to 89%**.
- Tech:** Flask, PostgreSQL, Docker, LlamaIndex, Prompt Engineering, ChromaDB, LoRA, Transformers

Skill and Schedule Tracking Dashboard

Developed an efficient ETL (Extract, Transform, Load) system to monitor employee skills, experience and availability resulting in a **70% reduction** in project allocation time of around **20,000 project members**.

- Engineered a **real-time** employee data pipeline from **Workday** using **Kafka**, streaming **25,000+** weekly events into **InfluxDB**.
- Designed custom data visualization solutions, such as Tree Maps, using **Python** to meet client requirements and drive decision-making.
- Optimized real-time data visualization by integrating InfluxDB with **Grafana**, enabling seamless creation of dynamic dashboards.

INTERNSHIP

NLP Researcher | Graduate School of Informatics, Kyoto University | Kyoto, Japan

May 2019 - Jul 2019

- Pioneered the development of high-performance Question-Answering model leveraging Wikipedia as the sole knowledge corpus.
- Used Neural Ranking model to retrieve **Top 100 documents** based on the query and document similarity scores from Wikipedia dump.
- Trained **BERT** on **SQuAD** dataset as the Reader Model improving the **accuracy by 4%** over the **DrQA** model
- Generated **Negative Samples** using SQuAD 2.0 dataset and trained the Reader Model, improving the model **accuracy by 2.9%**.

Data Science Intern | Indian School of Business | Hyderabad, India

May 2020 - Jul 2020

- Developed a time-series model to forecast Earnings Per Share for 5000+ US-based companies, using 35 years historical financial data.
- Implemented Random Forest Regressor, RNN, and ARIMA on the data spanning over 35 years, surpassing **33.8% of Equity Analysts**.
- Enhanced model efficacy by applying a **rolling window strategy**, boosting the percentage of equity analysts outperformed to **34.9%**.
- Engineered a self-training algorithm for domain adaptation, elevating the **F1-score** for cross-domain suggestions by **3%**.

EDUCATION

Masters in Mechanical Engineering	Indian Institute of Technology Kharagpur (GPA 8.63)	Jul 2020 - May 2021
Bachelors in Mechanical Engineering	Indian Institute of Technology Kharagpur (GPA 8.63)	Jul 2016 - May 2021
Bachelors in Computer Science and Engg.(Minor)	Indian Institute of Technology Kharagpur (GPA 8.35)	Jul 2016 - May 2021

KEY SKILLS

Software Skills: Backend Development, NLP, Machine Learning, Computer Vision, Cloud Computing (AWS, Azure), Docker, Git

Programming: Python, C++, Node.js, React.js, SQL | **Databases:** PostgreSQL, MongoDB | **Deep Learning Frameworks:** TensorFlow, Keras

Certifications: AWS Certified Machine Learning Specialist, AWS Certified Solution Architect-Associate, Kaggle Expert

ACHIEVEMENT

- Achieved AIR **2907(99.8 percentile)** in **JEE Advanced** 2016 and secured State Rank **49(99.98 percentile)** in **WBJEE** 2016 in West Bengal.
- Secured AIR **861 (98.6 percentile)** in **KVPY 2015-16** among 60,000 students, demonstrating strong aptitude in science and research.
- Managed sports activities for B.R. Ambedkar Hall, a residence of **1500 students**, leading participation in multiple General Championship events during my tenure as **Secretary of Sports** fostering teamwork, competitiveness, and a strong sports culture.