# Swayam Khandelwal@

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#### **EDUCATION**

## **BMS Institute of Technology and Management**

Bachelor of Engineering in Computer Science-9.46 CGPA

## **Yugantar Public School**

10<sup>th</sup> Standard: **96** Percent 12<sup>th</sup> Standard (PCM): **97** Percent

### **PROJECTS**

# Al Enhanced Balanced Tree (AEBT) 🔗

Tech Stack: Python, Scikit-learn, NumPy, Matplotlib.

Developed an innovative data structure, AI-Enhanced Balanced Tree (AEBT), integrating AI algorithms with traditional balanced tree properties to optimize data operations.

**Efficient Data Management**: Utilized AVL/Red-Black tree properties for efficient storage, retrieval, and sorting of large datasets.

**Al-Driven Optimization**: Incorporated machine learning algorithms for dynamic optimization of search, insertion, deletion, and sorting processes.

# Decentralized Ticket Booking App (Ciphertix)

Tech Stack: React, Node.js, Ethereum, Solidity, Hardhat, Gemini, IPFS.

Designed and implemented a seamless and intuitive user interface using React.js.

Engineered **robust authentication** functionalities with Blockchain, ensuring high-performance and scalability for efficient ticket booking operations.

**Implemented Ethereum blockchain** for secure and immutable ticket transactions, guaranteeing transparency and trustworthiness in every transaction.

Leveraged Pinata's **IPFS for decentralized**, safe, and secure storage of user IDs.

**Integrated Gemini API** to provide users with access to event descriptions and booking options, enhancing platform versatility.

# HR Agent using LLM's 🤣

Tech Stack: Python, RAG, VectorStores, Llamaindex, Tools, LLM. Utilized advanced retrieval-augmented generation (RAG) techniques and vector databases to enhance the accuracy of candidate assessments. Integrated multi-agent collaboration to streamline HR processes, improving decision-making in the selection process.

Focused on **optimizing the evaluation workflow** for a more efficient and effective hiring strategy. Demonstrated a significant improvement in candidate quality and selection efficiency. Delivered a scalable solution tailored to HR needs.

#### **CERTIFICATIONS**

Azure Fundamentals (Microsoft - April '23) Azure Al Fundamentals (Microsoft - June '23) Foundations-Data Analytics (Google - July '23) Python Data Structures (Infosys Springboard - March '23) ATL Tinkerpreneur (NITI Ayog - June '21)

#### **EXPERIENCE**

## Al Engineer Intern (IBM)

06/2024 - 06/2024

Tech Stack: Python, PyTorch, IBM Watson AI, LangChain, LLMs, IBM Cloud, RAG.

I gained extensive experience and hands-on experience with DL, LLMs, and advanced LLM based tech. My work involved prompt engineering and fine-tuned various LLMs, including IBM's Watson AI, and worked on solutions leveraging Large Language Models. I developed a scalable RAG (Retrieval-Augmented Generation) evaluation framework, which can evaluate up to 100 RAG pipelines simultaneously, improving efficiency by 83% in time and resource utilization.

# **Full Stack Developer Intern (Hireintel)**

03/2024 - 06/2024

Tech Stack: Python, React, Next.js, Express.js, MongoDB, AWS (basic), HTML/CSS/JS.

As a Full Stack Developer Intern at HireIntel, I played a pivotal role in developing engaging web interfaces utilizing a diverse tech stack including Python, React, Next.js, and Express.js. Alongside UI development with React.js, Next.js, and Edge templates, I also contributed to MongoDB for database management, implemented AI-based functionalities using Python, and managed CRON jobs for automated tasks. Additionally, I acquired foundational knowledge in AWS, including SSH basics, and successfully implemented a landing page using Express, HTML, CSS, and JS to enhance platform usability and drive product innovation.

# Frontend Developer Intern (Learn Tinkering)

10/2022 - 11/2022

Contributed to frontend development at Learn Tinkering, crafting engaging web interfaces and enhancing platform usability. Created interactive webpages using HTML, CSS, PHP.

# **S**KILLS

Cloud Computing (Azure, AWS)
Data Analysis and Visualization (Python)

#### **ACHIEVEMENTS**

**HCL- TECHBEE**: Received letter of Intent from HCL technology after 12<sup>th</sup> Std. for training and placement under Tech Bee program of HCL.

**NATIONAL LEVEL ROLLBALL PLAYER**: Participated at the 63rd National school games, Neemuch, Madya Pradesh.

**INDIAN NAVY**: Got selected for the SSB interview for 10+2 Technical entry scheme. A conference out candidate from 12-SSB Bangalore.

**INTERNATIONAL RANK 52:** Achieved at International Cyber Olympiad at National Cyber Olympiad held by SOF.