Yuvraj Singh Chowdhary

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Education

Netaji Subhas University of Technology   *New Delhi, India*
B.Tech - Computer Science Engineering; CGPA: 8.83 (upto 6th Semester)   *July 2021 - Present*
Coursework: *Database Management Systems, Data Structures, Operating Systems, Computer Networks, Object-Oriented Programming*

Work Experience

Software Engineering Associate Intern   *June 2024 - Present*
HCLTech, Noida, India
- **Performance Optimization**: Applied indexing and query optimization techniques to reduce data retrieval times by 35%. Refactored REST API endpoints and implemented caching strategies, achieving a 30% decrease in response times and improving overall system throughput
- **Automation and Integration**: Automated task scheduling using Python and integrated RabbitMQ for message queuing, leading to a 25% reduction in manual processing time and a 20% increase in system reliability

Research Intern   *February 2024 - April 2024*
IGDTUW, Delhi, India
- **5G and IoT Integration**: Designed and implemented algorithms for integrating 5G networks with IoT devices using network slicing and edge computing, enhancing data throughput and reducing latency by 40%
- **Deep Learning for Object Detection**: Developed and deployed YOLOv5 for real-time object detection using Jetson Nano, enhancing detection accuracy by 25% and reducing false positives by 20%

Technical Skills

- **Languages**: Python, JavaScript, C/C++, SQL, Solidity
- **Libraries & Frameworks**: React, Redux, Node.js, Express, Flask, FastAPI, Keras, TensorFlow, Scikit-learn, Tailwind CSS
- **Tools & Platforms**: Git, Docker, Kubernetes, CI/CD, Jupyter, Figma, Google Firebase, Power BI, AWS, GCP, Azure
- **Databases**: MongoDB, PostgreSQL, MySQL, Redis,Oracle Autonomous Database
- **Technologies**: MERN Stack, REST APIs, DevOps, Machine Learning, Generative AI, Blockchain

Projects

- **Self-Driving Car Simulation (RL)**: Python, TensorFlow, OpenAI Gym. **95% accuracy**. Simulates autonomous drive ⌂
- **Multilingual NLP Translator**: Python, PyTorch, Transformer. **92% accuracy**. Translates text across 10 languages ⌂
- **CacheGuard**: C, OpenSSL, POSIX, Sockets. Speedy proxy with cache, multi-threading, bandwidth control, **25% faster** ⌂
- **Context-Aware Discord Bot**: Python, Discord API, Gemini API. Manages **15 contexts** in conversations ⌂
- **MultiPDF Chatbot (Symphony IO)**: Python, Streamlit, OpenAI API. Powered up PDF access by **40% faster** ⌂
- **A3C-Based KungFu Game**: Python, TensorFlow, OpenAI Gym. **85% win rate**. Uses A3C for game strategy ⌂

Publications

- **Chowdhary, Y. S., and G. Singh. "The Convergence of IoT and 5G: Transforming Connectivity in Smart City Applications."**: Second International Conference on Intelligent Cyber Physical Systems and Internet of Things, 2024.

Leadership Experience

Project Lead, CLAIR   *March 2023 - Dec 2023*
Enactus NSUT, New Delhi, India
- **Overview**: Led 50+ members to develop an affordable air purifier, improving air quality for 50,000+ residents. Won 1st place at National Exposition 2023, IITD (Cash Prize Rs 2.5 lakhs)

Project Lead, Project ANNOTSAV   *April 2023 - Present*
Enactus NSUT, New Delhi, India
- **Overview**: Directed 40+ members in implementing a smart irrigation system for 500+ farmers. Secured 1st place at World Races 2023, Enactus India HQ (Cash Prize Rs 35,000)

Representative, Project URJA   *Feb 2024 - Present*
Enactus NSUT, New Delhi, India
- **Overview**: Contributed to a project harnessing vehicular energy for the national grid. Achieved 1st place at ENEXUS 2023, Hindu College, DU (Cash Prize Rs 10,000)

Achievements

- **Kaggle Expert**: Achieved Kaggle Expert ranking by delivering advanced machine learning solutions across 25+ projects ⚲
- **Microsoft Certified GenAI Developer**: Demonstrated expertise in generative AI technologies ⚲
- **5-Star SQL Coder**: Earned 5-star rating on HackerRank, showcasing exceptional SQL proficiency ⚲
- **Algorithmic Skills**: Solved 300+ coding problems on LeetCode and Code 360 @Naukri ⚲
- **Academic Excellence**: Ranked in the top 1% of students with a 9.8 SGPA in the 3rd semester at NSUT Delhi