Hemant Raj Singh

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SKILLS

Languages: Python, R, Java, JavaScript, TypeScript
Machine Learning: Neural Networks, Deep Learning, NLP
Technologies: TensorFlow, Keras, Scikit-learn
Libraries/Frameworks: Pandas, NumPy, NLTK, FastAPI, Flask, OpenAPI, Angular, Node
Cloud & DevOps: AWS (EC2, RDS, S3), Azure, GCP, Docker, Azure DevOps, Github Actions
Tools: Jupyter, Matplotlib, Seaborn, Postman

EDUCATION

LAMBTON COLLEGE   TORONTO, CA
Postgraduate in Artificial Intelligence & Machine Learning   Sep 2023 - May 2025
Key Courses: Machine Learning, Data Analysis, NLP, Neural Networks, Deep Learning

TRIBHUVAN UNIVERSITY   NEPAL
Bachelor of Science in Computer Science & Information Technology   2013 - 2017

WORK EXPERIENCE

Inspired Technologies & Business Solutions Inc   Toronto, Canada
Backend Developer | Co-op   Jan 2025 – Present
- Developed core backend services for a Couchsurfing platform, including the Review Service and Verification Service (face/video identity validation).
- Streamlined backend API contract compliance by refactoring large monolithic OpenAPI specs into a modular multi-file structure.
- Improved API testing reliability by 30% by creating version-controlled Postman workflows synced with OpenAPI specs and Github branches.
- Reduced deployment time by 40% by implementing end-to-end CI/CD automation using Github Actions and Docker.

PROCIT B.V. (Remote)   Rotterdam, Netherlands
Software Developer | App Team Lead   Aug 2018 – Jul 2023
- Led and assist the app development team of Smartflow (web/android/iOS), an award-winning tank storage optimization solution with global clients like Royal Vopak, NxtPort.
- Designed and implemented CI/CD pipelines automating deployment process and reducing release time by almost half.
- Optimized SQL operations and queries reducing pages load from 16 seconds to 900 milliseconds.
- Consulted and handled technical requests of global customers like Royal Vopak, NxtPort International, Dopingautoriteit.

PROJECTS

REHEASERIGHT- REAL TIME AI FEEDBACK FOR PUBLIC SPEAKING TRAINING
- Designing an AI tool for real-time emotion detection during public speaking using TensorFlow, Keras, and OpenCV.
- Detects facial emotions and provides real-time feedback to enhance public speaking skills based on confidence and emotional state.
- Deploying with AWS and containerizing the solution with Docker for scalability.

MOVIEMATCH- MOVIE RECOMMENDATION
- Developed a movie recommendation system using Python, Flask, and NLP techniques to provide personalized movie suggestions.
- Utilized NLTK, TF-IDF, and Cosine Similarity to analyze user preferences based on genres, moods, and keywords.
- Deployed using AWS EC2 and RDS, with Docker for smooth deployment and scalability.

SMARTFLOW – TANK STORAGE OPTIMIZATION SOLUTION
- Optimized SQL queries, improving response time from 16 seconds to 900 milliseconds, enhancing user experience and system performance.
- Developed and maintained CI/CD pipelines, automating deployment processes and reducing manual intervention by 50%.
- Managed the release of both web and Android applications for Smartflow, ensuring timely and error-free deployments.