

Ronak Chhatbar

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EDUCATION

- **University at Buffalo, The State University of New York** Buffalo, NY
Masters in Computer Science Aug 2022 - Jan 2024
Courses: Operating Systems, Analysis Of Algorithms, Bio-metrics Image Analysis, Machine Learning, Reinforcement learning.
- **Jawaharlal Nehru Technological University Hyderabad** Hyderabad, India
Bachelor of Computer Science; GPA: 3.6 Aug 2015 - May 2019
Courses: C, C++, Machine Learning, Cloud Computing, DSA, Computer Networks, Probability and Statistics, Mathematics (I, II, and III), Compiler Design.

EXPERIENCE

- **Tensorgo Technologies** Hyderabad, India
Computer Vision Engineer Sep 2020 - Aug 2022
 - Directed the development of a system to process live video streams, using a zoo of computer vision models for real-time inferences and metadata generation.
 - Implemented an immediate metadata analysis mechanism, enhancing model accuracy and responsiveness.
 - Integrated tensorrt with Docker, optimizing model deployment and achieving a 15% reduction in operational costs.
- **Wavelabs.ai** Hyderabad, India
Machine Learning Engineer May 2019 - Aug 2020
 - Developed object detection models for threat identification, ensuring real-time alerts on mobile apps.
 - Led teams to create swift mobile alert systems and established streaming pipelines in a microservices architecture.
 - Constructed a forecasting engine for the BFS remittance domain, aiding in data-driven strategic decision-making.
- **Wavelabs.ai** Hyderabad, India
Computer Vision Research Intern Nov 2018 - April 2019
 - Advanced a real-time facial detection and recognition system using Resnet50, OpenCV, and Keras.
 - Assisted in data gathering, leading to enhanced object detection, classification, and segmentation outcomes.

ACADEMIC EXPERIENCE

- **Spatial AI & Robotics Lab** Buffalo, NY
Graduate Research Assistant Dr.Chen Wang — May 2023 - Present
 - Engineered C++ plugins to optimize visual odometry models for TensorRT backend integration.
 - Enhanced optical flow estimation through specialized plugins, resulting in a notable 33% boost in inference efficiency.
 - Led backend development of robotranking.com, a platform similar to cstranking.org.
- **University at Buffalo, The State University of New York** Buffalo, NY
Projects Aug 2022 - Present
 - Constructed a stereo CSI Camera library for Nvidia Jetson Xavier, emphasizing disparity map tuning and adaptive image resizing.
 - Experimented with reinforcement learning methods, leveraging PyTorch across various environments.
 - Enhanced the Pintos OS kernel with priority donation, queue scheduling, and virtual memory management.
 - Devised an algorithm for 3D-face point cloud data processing, leveraging pointnet++ in PyTorch.

SKILLS SUMMARY

- **Languages:** Python, C++, Java, Scala, Go, Rust, C, SQL.
- **Tools:** Databricks, Jupyter Notebook, Apache Spark, S3, Athena/Trino, GenAI tools (e.g., Langchain, LlamaIndex), Vector DBs, MLOps platforms (Kubeflow, MLFlow), Kubernetes, Docker, GIT, JIRA, Apache Kafka, Postman, Agile, Tableau, PySpark, Postgres, Django.
- **Deep Learning:** PyTorch, TensorFlow, Caffe, OpenCV, QT, OpenGL, Generative AI techniques, Federated Learning, Computer Vision, LLM, Reinforcement Learning, ONNX, Flask, Django, Tensorrt, Triton Inference Server, Deepstream, CUDA.
- **Cloud Platforms:** AWS, GCP, and Azure.