DIVYESH JAGETIA

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ML Researcher with 6+ years of experience and M.Sc. in Computer Science. Expertise in AI innovation, LLMs, and scalable ML solutions. Committed to delivering business impact through fair and responsible AI, with a proven history of successful products.

PROFESSIONAL EXPERIENCE:

Machine Learning Research Scientist | Arrow Electronics, USA May 2021 – Present

- **Research & Development of Advanced AI Models:** Built and deployed high-precision NLP models (BERT, LSTM) for sentiment analysis on large-scale news data. Applied Deep Learning techniques, including Transformers (BERT, GPT, T5), LSTMs, CNNs, GANs, and VAEs. Developed ranking networks for supply chain resilience, optimizing lead time, stock, and obsolescence forecasting.
- **AI Deployment & Scaling for Real-World Applications:** Engineered Graph Neural Networks (GNNs) with GraphSAGE, DeepWalk and Node2Vec for advanced graph learning applications. Optimized ML deployments using TensorRT, ONNX, Triton Inference Server, Ray, and Kubeflow for scalability. Leveraged OpenCV, CLIP, DINO, and Vision Transformers for image understanding.
- **AI Strategy, Governance & Ethical Compliance:** Reviewed AI governance policies, ensuring ethical compliance and responsible AI development within the organization. Strategized AI use cases based on business value, feasibility, and resource constraints for optimal impact. Led AI use-case prioritization workshops to maximize business impact worth $170M considering ML feasibility.
- **Leadership, Mentorship, Collaboration & Industry Engagement:** Led a team of 5 researchers to develop a recommender system and conversational search using LLMs. Engaged with the academic community (MIT CSAIL), publishing, presenting research, and collaborating on AI innovations. Integrated ML models into production, driving innovation through cross-functional collaboration. Mentored ML engineers through hands-on AI upskilling, career growth, and real-world ML Product Management Strategies.

Research Associate | Boston University, USA | Dr. Eugene Pinsky, Dr. Traci Hong Jan 2020 – May 2021

- Designed and implemented casual inference reinforcement learning model simulation to study user impulsivity and drug influence.
- Delivered production ready ML models and dashboards, mentoring students, ensuring reproducibility, scalability of experiments.

Research Engineer, Robotics & AI |Defense Research & Development Organization, India |Dr. Alok Mukherjee June 2018 - Dec 2019

- Developed deep learning-based real-time video processing for an Autonomous Holonomic Robot to enhance military surveillance.
- Optimized vision-based object tracking using YOLO, Kalman Filters and path planning, improved detection accuracy by 40%.

Software Engineer | Timely, India June 2017 – May 2018

- Designed and executed test automation pipelines, reducing defect detection time by 25%, improving system reliability.
- Performed regression testing and quality assessment, enhancing database management and overall application performance.

RESEARCH PROJECTs:

Multi-Agent connected Autonomous Driving at traffic intersection using Deep Reinforcement Learning, BU | A Chavez

- Addressed two current challenges of partial observability and learning distribution caused by centralized reinforcement learning.
- Compared two different algorithms that uses a Partially Observable Markov Game approach and a Q-Learning approach to reduce the learning difficulty of each local vehicle. This framework is studied using MACAD-Gym platform (CARLA).

Visually Grounded Neural Syntax Acquisition, BU | David A Tofu

- Researched state-of-art approach - multilingual unsupervised ground parsing. Improved performance for low resource languages.
- Demonstrated that visually grounded syntax acquisition can benefit from cross lingual performance using hybrid image-caption pair

Consistent Hashing with Bounded Loads, BU | Dr. Belyaev

- Implemented a solution to overcome the cascading effect on Consistent hashing caused by increasing load, reducing latency by 22%
- Designed fast min-max consistent hashing for balanced client-server dynamic allocation, improving scalability under high traffic.

3 x 3 Rubik's Cube Solver, BU

- Developed an AI agent to solve a Rubik's cube using Constraint Propagation, depth-first, back tracking and reinforcement learning.
- Scanned a scrambled cube through computer vision. Achieved sub-2-second solve time, outperforming CNN-based approaches.

Electronic Components Obsolescence Forecasting, Arrow + MIT | Prof. Dr. Amar Gupta

- Analyzed important attributes using PCA, linear and logistic regression analysis on temporal data to extrapolate with 98% accuracy.
- Performed classification analysis using Naïve Bayes, Decision trees, SVM, clustering techniques to predict life impact by supply chain.

Autonomous Driving System, MIT

- Developed a remote vehicle to drive autonomously by imitating the front vehicle in a sophisticated urban environment.
- Agent consisted of camera which detected brake lights and Raspberry Pi to simultaneously control motion, improving safety by 35%

EDUCATION:

Master of Science in Computer Science | Boston University (2021) | GPA: 3.87/4.00

Thesis: *Expectation-Maximization clustering of multi-variate α-stable elliptical distributions* | Prof Dr. Eugene Pinsky

Bachelor of Engineering in Electronics and Telecommunication | Maharashtra Institute of Technology (2018) | GPA: 8.11/10.00

Software:	Python, C++, Java, R, MySQL, Rust **|** **Framework**: PyTorch, TensorFlow, Keras, Jax **|** **Stacks**: QLoRA, TinyML, CUDA, TensorRT, MLflow, DALLE **|LLMs**: Grok3, DeepSeeek-R1, GPT4, EXAONE3 **|Edge AI:** NVIDIA Jetson, ONNX Edge TPU
Expertise:	Robot Learning and Vision, Data Science, DBMS, Computer Language Theory, Robotics, Optimization, OS, OOP, Data Structures and Algorithms, Deep Learning, Generative AI, Statistical Learning Theory, ML for Healthcare, Agentic AI
Certifications:	Self-Driving Car Engineer, Udacity **|** ML, Coursera **|** Satellite Communication, IIT **|** ML Ops & Scalable ML, Google