

ADITYA GAMBHIR

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Summary

Data-science professional with an M.S. in Computational Data Science, experienced in building machine-learning and deep-learning models, constructing ETL data pipelines, and cleaning large datasets. Skilled in statistical analysis, translating complex data-analysis results into business insights. Collaborates effectively in teams and applies strong analytical thinking and business acumen. Passionate about advancing AI-driven products through experimentation and communication.

Skills

Languages: Java, C, C++, JavaScript, TypeScript, SQL, Python, Bash, R

Libraries/Frameworks: Machine Learning, NumPy, Pandas, Matplotlib, Seaborn, SpaCy, OpenCV, Scikit-Learn, TensorFlow, Keras, PyTorch

Databases: PostgreSQL, MySQL, MongoDB, SQLite

Cloud/DevOps: AWS (EC2, S3, Lambda), GCP, Azure, Docker, Kubernetes, GitLab CI/CD

Data Analytics/Big Data: Hadoop, Spark, Kafka, BigQuery, Snowflake

Tools: VS Code, IntelliJ IDEA, Postman, Git, Jupyter Notebook, Excel, Tableau, Power BI

Methodologies & Soft Skills: Agile, Scrum, Communication, Leadership, Problem-Solving, Teamwork, Analytical Thinking, Business Acumen

Experience

Tech Mahindra

June 2022 – May 2023

Software Development Intern

Pune, Maharashtra

- Designed relational and NoSQL data models and built ETL pipelines that ingested 15+ simulated endpoints, improving data quality and traceability.
- Automated UK telecom contract creation with React.js, reducing critical bugs by 40% and accelerating delivery by 25%.
- Developed scalable MERN stack solutions, enhancing overall system performance by 30%.

Centre for Development of Advanced Computing

Jan 2022 – Jun 2022

Research and Development Intern

Remote

- Developed interactive web service for brainwave analysis, cleaning and processing data in real time for 500+ users.
- Implemented secure multi-level user access, boosting processing efficiency by 30%.
- Enhanced app stability to 99.9% uptime through rigorous testing and debugging.

Education

University of California, Riverside

Sep 2023 – Mar 2025

Master of Science in Computational Data Science

GPA: 3.67/4

Relevant Coursework: Big Data Management, Advanced Operating Systems, Database Systems, Artificial Intelligence, Machine Learning, Spatial Computing, Data Analytics

Projects

Sensor Fusion for Self-Driving Vehicles – C++, Point Cloud Library, Eigen, Kalman Filter Aug 2024 – Oct 2024

- Applied Unscented Kalman Filter for time-series sensor fusion and statistical analysis of tracking errors, achieving vehicle-tracking RMSE < 0.5 m.
- Processed point-cloud and radar feeds to enhance autonomous-driving safety and situational awareness.
- Improved highway-simulation accuracy, reducing system response delay by 20%.

Transformer Model for Crowd Localization – PyTorch, Transformers, Computer Vision Apr 2024 – Jun 2024

- Built transformer model in PyTorch, improving accuracy by 12% and reducing ambiguous detections by 20%.
- Optimized predictions with Hungarian matcher; validated robustness across five major datasets.
- Delivered a scalable crowd-localization pipeline for real-world deployment and performed statistical analysis of precision/recall trade-offs.

Chatbot Using Transformer Models – NLP, Deep Learning, Transformer, LSTM

Sep 2023 – Dec 2023

- Achieved BLEU 25.67 with Transformer model—35% higher than LSTM baseline.
- Managed compute efficiently and preprocessed text data to create a domain-specific vocabulary of 8,245 words.
- Delivered higher-quality, faster chatbot responses for conversational AI demonstrations.

Publications

A Comprehensive Survey of Multiple Object Tracking Techniques [\[DOI\]](#)

March 2024

- Surveyed object-tracking techniques to improve accuracy for dynamic traffic systems.
- Outlined future work to enhance real-time tracking and reduce processing delays.