

Ashwin Satish

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EDUCATION

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| Northeastern University <i>Master's of Science, Data Science</i> (GPA: 3.75) Machine Learning, Algorithms, Data Mining | Boston, MA Sept 2024 - Apr 2026 (Currently: Natural Language Processing, MLOps) |
| Christ University <i>Bachelor's of Science, Computer Science</i> (GPA: 3.53) | Bangalore, India June 2020 - May 2023 |

EXPERIENCE

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| Northeastern University - Machine Learning Researcher | Jan 2025 - Present Boston, MA |
| <ul style="list-style-type: none">Boosted true positives from 2% to 77% while maintaining zero false positives for early-stage Lyme cell detection via a 7-model CNN ensemble (TensorFlow).Built a pipeline for reconstruction & masking of 10,000+ cell images, saving the biology team weeks of manual work.Improved accuracy by 13% via augmentation & L2/dropout regularization, achieving production-ready performance. | |
| Northeastern University - Teaching Assistant (<i>Foundations of Data Science</i>) | Aug 2025 - Present Boston, MA |
| <ul style="list-style-type: none">Mentored 300+ students in linear algebra & statistics for ML & Data Science via problem-solving sessions & NumPy demos.Conducted 4+ weekly office hours clarifying topics like constraint optimization, low-rank approximation, & regression. | |
| CarerAI - Data Science Intern | Jul 2023 - May 2024 Gurgaon, India |
| <ul style="list-style-type: none">Prevented 2,000+ unnecessary procedures for customers by uncovering 500+ surgery avoidance cases through KNN analysis of patient records against historical data.Enabled automated processing for 40% of cases by improving classification accuracy 26.4% via feature engineering.Improved KNN's accuracy by 20% using DBSCAN clustering to remove record outliers, reducing false positives in surgery recommendations. | |
| Christ Consulting - Lead Developer | Jul 2022 - Apr 2023 Bangalore, India |
| <ul style="list-style-type: none">Led development of Python project system on AWS, migrating from paper to 100,000+ records in MySQL, scaling operations without adding headcount.Improved project success rates by 20% by building interactive dashboards that surfaced at-risk projects for early intervention.Optimized task completion rates by 24% by engineering weighted user index to rank users on task & performance metrics. | |

SKILLS

Programming | Data: Python, SQL, R, Pandas, NumPy, PySpark, Scikit-learn, TensorFlow, PyTorch, Hugging Face, OpenCV

Visualization | Cloud: Git, Tableau, Matplotlib, Seaborn, Plotly, AWS, GCP, Azure, PostgreSQL, Snowflake, Docker

AI | Modeling: Transformers, BERT, LoRA, AutoML, T5, LangChain, Kubeflow

PROJECTS

AI-Powered Pokémon Team Analyzer

- Built team analyzer comparing against top **300** monthly threats, suggesting upgrades in seconds vs. hours manually.
- Engineered data pipeline to parse metadata for threat detection, enabling scalable analysis that **adapts to real-time** meta shifts.
- Optimized LLM prompts reducing token usage **30%**, enabling JSON outputs & **3x more analyses** within API rate limits.

AceAI: Neural Network Card Classifier

- Built & deployed a PyTorch/Flask model achieving **85% true positive rate** for real-time classification of 52 playing cards, showcasing potential in automated gameplay, casino analytics, & digital gaming platforms.

NBA Game Outcome Predictor

- Built an NBA game predictor by performing EDA on **20,000+ games** to identify KPIs that drive wins.
- Discovered **3 distinct winning strategies** with K-means clustering, enabling matchup-based predictions & actionable insights.