Jonesh Shrestha
Chicago, IL 60613 | (312) 973-9061 | contact@joneshshrestha.com
joneshshrestha.com | linkedin.com/in/joneshshrestha | github.com/joneshshrestha

EDUCATION

DePaul University — **Chicago, United States**
Masters of Science in Computer Science (AI), GPA: 3.80 — *Sept 2024 - July 2026*

Kathmandu University — **Dhulikhel, Nepal**
Bachelor of Science in Computer Science — *Feb 2016 - June 2020*

SKILLS

Languages: Python, SQL, R
ML/AI: TensorFlow, Scikit-learn, PyTorch, Pandas, NumPy, Deep Learning (CNNs, Transformers)
Tools & Platforms: Git, Docker, Jupyter, AWS EMR, Oracle Data Integrator (ODI)
Specializations: ETL Pipelines, Computer Vision, Natural Language Processing, MLOps

PROFESSIONAL EXPERIENCE

DePaul University — **Chicago, United States**
AI Research Assistant — *July 2025 - Present*
- Researching scientific chart mining with DB/DB++/PSENet/EAST detection and SVTR recognition using PPHGNetV2_B4, achieving 97% accuracy through preprocessing optimization and dataset fine-tuning.

Cotiviti Nepal Pvt. Ltd. — **Kathmandu, Nepal**
Software Engineer — *July 2021 - July 2023*
- Built ETL pipelines using SQL, PL/SQL stored procedures, and ODI to process US healthcare PHI data for 15+ clients, designing automated validation checks to ensure data quality throughout client onboarding.
- Collaborated with cross-functional teams (developers, QA, PMs) to deploy production solutions and mentored 10+ team members on ODI workflows.

Kathmandu University — **Dhulikhel, Nepal**
Graduate Research Assistant — *Mar 2021 - Apr 2022*
- Developed Nepali image captioning model using CNN and Transformer architectures, optimizing performance through hyperparameter tuning and attention mechanisms using BLEU and METEOR metrics.

PROJECTS

Delivery Route Optimization, *AI search algorithms for logistics* — *July 2025 - Aug 2025*
- Compared BFS, UCS, and A* algorithms on real-world delivery scenarios, achieving 4x performance improvement with A* through custom heuristics while guaranteeing optimal solutions.

ML Classification Pipeline, *End-to-end production ML system* — *June 2025 - July 2025*
- Built end-to-end ML pipeline with automated hyperparameter tuning via grid search and k-fold cross-validation across Decision Tree, Random Forest, and Logistic Regression models with model persistence for production deployment.

Applied ML Implementations, *20+ projects across classification, regression & clustering* *Nov 2024 - May 2025*
- Implemented diverse ML solutions including fraud detection with imbalanced data (98% recall), cancer classification (96% F1-score), customer segmentation, geospatial clustering, and ensemble methods with comprehensive evaluation frameworks.

ACHIEVEMENTS

- Published Research Paper: "Evaluating the Application of SOLID Principles in Modern AI Framework Architectures" on arXiv (2025)
- Associate Member, Sigma Xi, The Scientific Research Honor Society (2025)