Kush Chaudhary

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Education

Iowa State University **Aug. 2024 – May 2026**
Master of Science in Artificial Intelligence *Ames, IA*

- **Relevant Coursework:** Advanced Machine Learning, Natural Language Processing, Principles of AI

Pittsburg State University **Graduated Dec. 2023**
Bachelor of Business Administration in Programming/Business Analytics (GPA: 3.5) *Pittsburg, KS*

Experience

Telligen **May 2025 – Aug. 2025**
Software Engineer Intern

- Engineered a proof-of-concept AI feature for the Qualitrac healthcare suite to automate data extraction from PDF assessments.
- Developed a Java-based backend service that orchestrated an OCR-to-LLM data pipeline for efficient text processing.
- Utilized Tesseract for OCR and a proprietary LLM to parse unstructured text, converting it into validated, structured JSON.
- Presented the PoC to stakeholders, demonstrating a potential 80% reduction in manual data entry time for key forms.

SelectQuote **Jan. 2023 – May 2025**
Database Developer Intern *Overland Park, KS*

- Designed and implemented scalable SQL database architecture to support new agent-facing applications.
- Authored and optimized complex T-SQL stored procedures and queries.
- Wrote and maintained a suite of unit tests using Jest for JavaScript components, ensuring code reliability and preventing regressions.

Projects

AI-Powered Document Digitization (Internship Project) | *Java, OCR, Tesseract, LLMs* **Summer 2025**

- Engineered a Java workflow integrating OCR for text extraction from unstructured PDF healthcare assessments.
- Leveraged a proprietary LLM to intelligently parse extracted text and convert it into a structured JSON format for database ingestion.

Automated Short Answer Grading using NLP | *Python, DistilBERT, TF-IDF, Gemini* **Spring 2025**

- Developed and compared three NLP models (Rule-Based, fine-tuned DistilBERT, and LLM) to automate the classification of short-answer exam responses into ‘Correct‘, ‘Incorrect‘, and ‘Imprecise‘ categories.
- Fine-tuned a DistilBERT model on a dataset with significant class imbalance, achieving 88.4% test accuracy and demonstrating superior semantic understanding over traditional methods.
- Implemented a TF-IDF and cosine similarity baseline model to contrast its performance against the transformer-based and LLM (Google Gemini) approaches.
- Performed a comprehensive analysis of the models based on F1-scores, accuracy, complexity, and interpretability.

Technical Skills

Languages: Python, Java, C#, JavaScript, SQL, T-SQL
Developer Tools: Git, Jira, Bitbucket, Confluence, VS Code, PyCharm
AI/ML Frameworks: PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib, BERT, VEO3, ElevenLabs
Technologies: Agile/Scrum (SFPC Certified), OCR, LLMs, REST APIs