Kush Rank

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Data science and full-stack developer with hands-on experience in machine learning, analytics, and building real, production-ready systems.

EDUCATION

New Jersey Institute of Technology — Aug. 2024 – Present
Bachelor's Degree in Computer Science — *Newark, NJ*

EXPERIENCE

HackFest 2025 – Smart Campus Wallet Project (UniWallet) — Nov. 2025
*ML/Full Stack Engineer – Team Tech-Knights – **GitHub:** github.com/UniWallet* — *Rutgers University–Newark*

- Built **UniWallet**, a full-stack smart campus wallet with AI insights; selected in the Top 7 and received special judge recognition for production-level implementation.
- Developed .NET (C#) backend with MySQL and integrated an AI recommendation engine using Python + vector embeddings.
- Implemented responsive Next.js frontend, spending analytics, budgets, event flows, and check-in system across a complete end-to-end architecture.

NJIT GirlHacks Hackathon — Sep. 2024
*ML Engineer – Team "SkillIssue" – **GitHub:** github.com/SkillIssue* — *Newark, NJ*

- Developed *SkillIssue*, an ML-powered resume analysis platform providing skill-gap detection, ATS scoring, and job recommendations.
- Implemented NLP-based feature extraction pipelines and ranking algorithms using Flask and MongoDB.

PROJECTS

Jarvis – Personal AI Assistant — Feb. 2025
Python — *GitHub: KushDev19/jarvis*

- Built a modular Python assistant with speech recognition, TTS, and system automation commands.
- Implemented web search and information retrieval with extensible module-based design.

Sales EDA & Modeling — Mar. 2025
Python, Pandas, scikit-learn, XGBoost — *GitHub: Sales-EDA-and-Prediction*

- Analyzed a 780k-row sales dataset; engineered features and trained predictive models using XGBoost.

Flight Price EDA — Apr. 2025
Python, Pandas, scikit-learn — *GitHub: Flight-EDA-and-Price-Prediction*

- Processed and cleaned a 13k-record flight-fare dataset; engineered travel features for price prediction analysis.

End-to-End ML Pipeline – Student Performance Predictor — Jul. 2025
Flask, scikit-learn, XGBoost, CatBoost, Render — *Live: ml-project-nu2y.onrender.com*

- Built production-grade ML pipeline comparing 8 algorithms; achieved R^2=0.88 with automated model selection.
- Implemented full preprocessing workflow (scaling, encoding, imputation) and deployed via Flask on Render with CI/CD.

TECHNICAL SKILLS

Languages: Python, JavaScript, SQL/MySQL

ML/DS: Pandas, NumPy, scikit-learn, XGBoost, CatBoost, EDA, feature engineering

Web/Backend: React, Next.js, Flask, .NET (C#), REST APIs

Tools: Git, Docker, Conda, GitHub Actions, Render, n8n (automation)

Soft Skills: Teamwork, Leadership, Communication