

ARVISH PANDEY

pandeya4@mail.uc.edu | [linkedin.com/in/arvp](https://www.linkedin.com/in/arvp) | arvishpandey.com | github.com/arvish

EDUCATION

University of Cincinnati, Bachelor of Science in Computer Science (HONORS) | GPA **3.5** **Graduated: Spring 2026**

- **AWARDS:** Dean's List (x7), UC Global Scholar, International Outreach Scholar, Global Citizen Scholar
- **Relevant Coursework:** Algorithms, Intelligent Data Analysis, Deep Learning, Database Design, Data Structures, Artificial Intelligence

University of Cincinnati, MBA (Dual Degree – ACCEND Program) | GPA **3.9** **Expected Graduation: Summer 2026**

SKILLS & ACTIVITIES

Languages: Python (5 yrs: Pandas, NumPy, PyTorch, Scikit-learn, TensorFlow, CUDA, Seaborn), **C#** (4 yrs), **Java** (3 yrs), **SQL** (2 yrs)

Technical: LangChain, Docker, Firebase, Pinecone, Anaconda, React, .NET Framework (WPF/WinForms), Git, Jupyter Notebook

Certificates: Duke University – Machine Learning Specialization | IBM – Data Science Professional Certificate

Activities: Headstarter **FULL RIDE** Scholar | Zooniverse Digital **Research** | WACE Global Challenge | UC Hyperloop

EXPERIENCE

SOFTWARE ENGINEERING RESIDENT - HEADSTARTER, New York, NY **Jun 2024 – Apr 2025**

- **Awarded full-ride scholarship** by founders; selected as 1 of 3,000 fellows for exceptional performance. Drove **\$2K+ revenue** from AI-powered management app (ReactJS, Firebase Auth, Llama 3.1)
- **Delivered 5 AI projects in 5 weeks** using NextJS, Firebase, Vercel; **accelerated release cycles by 40%** via Agile + CI/CD practices, cutting deployment times and increasing release velocity
- **Engineered RAG pipeline** with LangChain + GPT-4o on RateMyProfessor data; boosted user query satisfaction **50%+** by providing real-time, accurate responses
- **Built 14+ ML & full-stack projects** (5+ neural nets in Python, 11 TypeScript apps on AWS/Vercel) designed for **scalability, robustness, and enterprise-grade performance**
- **Optimized 10+ LLMs** with hyperparameter tuning/fine-tuning; improved accuracy and latency by **up to 50%**, powering projects like self-learning agents for stock prediction
- **Mentored by Google, Tesla, Citadel engineers** – applied best practices in ML, Kubernetes, and system design to sharpen project outcomes and develop leadership range

SOFTWARE DEVELOPER & MANAGEMENT INTERN – MOTZ ENGINEERING, Cincinnati, OH **May 2024 - Aug 2024**

- **Returned to expand pilot into enterprise-ready solution**, leading sprint planning and managing cross-functional interns under Agile methodologies. Improved delivery velocity by **30%**, establishing repeatable processes for scaling development
- **Automated deployment pipelines** with GitHub CI/CD, reducing deployment times by **50%** and minimizing branch conflicts, enabling seamless version control and faster iteration cycles
- **Pioneered first Revit Add-in** using WPF, automating complex engineering workflows; solution projected to save **20% of engineer man-hours annually (~\$200K+)**, backwards compatible with 5 Revit versions for long-term scalability
- **Collaborated with upper management**, presenting project progress and ROI impact to leadership to align technical deliverables with business goals, reinforcing credibility earned in prior term

SOFTWARE DEVELOPER INTERN – MOTZ ENGINEERING, Cincinnati, OH **Aug 2023 - Dec 2023**

- **Piloted first-ever internal database manager** using C#/.NET (WinForms, ADO.NET), interviewing stakeholders across 5 departments to gather requirements. Delivered production-ready pilot in 2 months, streamlining processes firmwide and laying foundation for company-wide adoption
- **Redesigned database architecture** with custom latency-optimized algorithms and validation/error-handling protocols, achieving ~60% reduction in latency and enabling **100% real-time data access** for remote/in-person employees
- **Secured executive trust** by presenting results directly to COO, CFO, and CEO, positioning the pilot as a strategic decision-making tool and elevating role from developer to product driver
- **Championed cross-functional collaboration**, authoring release documentation, coordinating with project managers and design leads, and interviewing new co-op candidates to scale the development team

SOFTWARE ENGINEERING INTERN - SHP, Cincinnati, OH **Jan 2023 - Apr 2023**

- **Developed 23 custom Autodesk Revit add-ins in 13 weeks**, streamlining engineering workflows for **100% of users** and reducing post-release bugs by **85%** through direct collaboration with the CTO on cross-departmental data dashboards

PROJECTS

QLoRA ENTERPRISE FINE-TUNING (Current | Synopsis, YouTube) **Present**

- Built parameter-efficient fine-tuning pipeline (QLoRA + RAG) to adapt LLMs for consumer analytics and loyalty data at enterprise scale

US BANK CHURN PREDICTION + LLM RETENTION | (30 Hrs | Synopsis, YouTube) **Apr 2025**

- Trained ensemble of ML models (XGBoost, Logistic Regression, Random Forest) on customer churn dataset, achieving greater than 96% recall on predictive retention
- Integrated Gemini via LangChain to generate personalized retention/appreciation emails, converting churn insights into business-ready customer engagement strategies

CREDIT CARD FRAUD DETECTION PIPELINE | (28 Hrs | Synopsis, YouTube) **Jan 2025**

- Engineered scalable fraud detection system on 1M+ transactions with feature engineering + anomaly detection, optimized with XGBoost (AUC ~0.96). Delivered **full ML pipeline** from ingestion → training → validation → deployment-ready proof-of-concept, showcasing real-world fintech scalability and ROI