

AYUSH KAFLE

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RELATED EXPERIENCE

Appluni | Startup, Student Developer

08/2024 – Present

- Co-founded a startup and engineered a web platform to streamline higher-education applications for students in Nepal, reducing redundant data entry through Common App-style workflows and improving user experience
- Collaborated with developers to design scalable application workflows and led development of an interactive prototype, driving product direction and technical decisions
- Delivered workshops on C++ and Artificial Intelligence, improving technical literacy and engagement among student participants

Campus Recreation Center | Facility Manager

08/2023 – Present

- Oversaw daily operations of a large-scale recreation facility, coordinating staff, enforcing policies, and resolving real-time operational issues to maintain service continuity
- Managed scheduling and logistics for external events and partnerships across the Northern Kentucky region, ensuring efficient facility utilization

Norse Tech Bar | Student Technical Assistant

08/2024 – 05/2025

- Diagnosed and resolved hardware/software issues across desktops, laptops, and peripherals, improving system reliability for students and staff
- Performed hardware upgrades (RAM, storage) and supported software installations, updates, and network troubleshooting

PROJECTS

AI Project Auto-Scaffolder

01/2026 – Present

- Built an AI-powered development assistant that transforms partial code inputs into complete project architectures (REST APIs, web apps, CLI tools)
- Engineered a rule-based intent detection system to classify application types and dynamically generate folder structures, configurations, and dependencies
- Designed a modular backend architecture to automate project initialization, significantly reducing developer setup time

Contact Manager

11/2025

- Developed a RESTful API using Node.js, Express, and MongoDB with full CRUD functionality, modular routing, and scalable controller architecture
- Implemented JWT-based authentication, password hashing, protected routes, and custom middleware for validation and centralized error handling
- Modeled relational data using Mongoose and validated API endpoints using Thunder Client

Meta Share Price Prediction Model

Spring 2025

- Developed machine learning models using regression and time-series techniques to predict stock price trends
- Cleaned and preprocessed large-scale historical datasets to improve model input quality
- Applied cross-validation and hyperparameter tuning to optimize performance and reduce overfitting

AI/Deep Learning Image Classification Project

Spring 2026

- Built and fine-tuned CNN and ResNet50 deep learning models using TensorFlow/Keras, achieving 89.9% image classification accuracy on CIFAR-10 through transfer learning and architecture optimization.
- Engineered a custom residual-style CNN with Batch Normalization and Dropout that improved accuracy by nearly **10%** while significantly reducing overfitting and model complexity.
- Developed GPU-accelerated preprocessing, augmentation, training, and evaluation pipelines in Python, including confusion matrix analysis and performance optimization across multiple architectures.

EDUCATION

Major in Computer Science, Minor in Maths, Northern Kentucky University | 05/2026 | Heights, KY

CGPA: 3.58, Member of IoT, Robotics Club

SKILLS

Languages: Python, Java, C++, C, SQL, JavaScript

Web & Backend: Node.js, Express, React, REST APIs, API Testing

Deep Learning: TensorFlow, Keras, CNNs, RNNs, Transformers, Transfer Learning

Machine Learning & Data: Scikit-learn, Regression, Classification, SVM, Decision Trees, Random Forests, Pandas, NumPy, EDA

Model Evaluation & Testing: Accuracy, Precision, Recall, F1-score, ROC Curves, Cross-validation, Unit Testing, Integration Testing

Tools & Databases: Git/GitHub, Linux, Postman, VS Code, Jupyter, Google Colab, MongoDB, MySQL, Oracle SQL