SKILLS

algorithm design, python, software development, machine learning, computer vision

PROJECTS

Online Code Judge | ['python', 'flask', 'postgresql']

Built an automated code evaluation system using algorithms and test case characterization, implemented sandboxed execution, performance analysis, and scalable backend services

Algorithm Visualization Toolkit | ['python', 'matplotlib']

Created visual simulations for sorting, graph, and dynamic programming algorithms to analyze time/space complexity and algorithm behavior

Machine Learning Mini Projects | ['python', 'numpy', 'pandas', 'scikit-learn']

Implemented classification, regression, and clustering models with data preprocessing, feature engineering, and performance evaluation

System Performance Analyzer | ['python', 'linux']

Built tools to profile CPU, memory, and I/O usage, performed system characterization, benchmarking, and performance optimization

Autonomous Navigation Simulation | ['python', 'numpy']

Developed simulation models for path planning and decision-making algorithms, focusing on optimization and performance analysis

Computer Vision Pipeline | ['python', 'opencv']

Implemented image preprocessing, feature extraction, and object detection pipelines for applied computer vision tasks

ML Model Deployment API | ['python', 'flask', 'docker']

Packaged machine learning models into REST APIs, containerized using Docker, and deployed with basic DevOps workflows

Algorithm Optimization Suite | ['python']

Implemented and optimized graph, search, and scheduling algorithms with benchmarking and comparative analysis

EXPERIENCE

Software Development Intern – XYZ Tech Solutions

Performed full-cycle software development including requirements analysis, system design, implementation, performance analysis, and optimization; characterized system behavior, improved response times, integrated distributed software components, and followed coding standards in production systems serving 10k+ users