Nathan Rhys
Machine Learning Engineer

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Machine Learning Engineer and Software Developer with non-profit leadership experience emphasizing public speaking community engagement, grass-roots fundraising and adult mentorship combined with technical specialization in Machine Learning architecture and systems programming

Education

Diploma in Computer Science and Machine Learning   **Expected August 2025**
Atlas School - Tulsa, OK   **GPA 3.4**
A peer and project-based 20-month software engineering school in Tulsa, Oklahoma. The curriculum began with the fundamentals of software engineering in C, progressing through Full Stack Web Development covering Front-End and Back-End engineering, culminating in a 12 month focus on Machine Learning engineering and professional development

Bachelor of Biblical Studies   **Graduated December 2014**
Sunset International Bible Institute - Lubbock, TX   **GPA 4.0**
A 128-credit hour biblical studies program developing project management experience through multi-phase theological research projects, systems thinking in comprehensive textual analysis, cross-functional leadership via community outreach, and strategic communication with diverse and cross-cultural audiences—all while cultivating agile adaptation and deadline-driven execution in high-pressure environments with competing priorities

Projects

Computer-Vision Transfer Learning - Solo Engineer   **December 2024**
github.com/3lackrukh/atlas-machine_learning/supervised_learning/transfer_learning
- Achieved 94.5% validation accuracy on CIFAR-10 image classification task building on the EfficientNetV2 model
- Devised memory-efficient training pipeline with progressive learning rate decay and batch augmentation balancing computational efficiency with strong model performance on modest hardware
- Developed experimental spatial attention adaptive dropout, delivering 96% F1-score for most classes

Backend Database Migration - Lead Developer   **June 2024**
github.com/3lackrukh/atlas-AirBnB_clone_v2
- Integrated file storage and MySQL backends for data persistence and cross-migration with SQLAlchemy
- Implemented RESTful command-line interface with multi-parameter handling for object creation, retrieval, update and deletion with comprehensive unit testing
- Designed relational database schema with foreign key constraints and cascade deletion rules maintaining data integrity across storage engines

Custom Unix Shell - Lead Developer   **April 2024**
github.com/3lackrukh/atlas-simple_shell
- Led end-to-end development of POSIX-compliant shell implementation in C
- Designed input processing pipeline delivering seamless path resolution for built-in shell operations
- Engineered parent-child process architecture with executable validation, ensuring proper status code propagation
- Integrated resource tracking and cleanup system ensuring zero-leak memory safety in all termination scenarios

Skills

Languages : Python, Javascript, Typescript, C, HTML, CSS, Shell Scripting
Development : REST APIs, Unit Testing, Git Version Control, Docker Deployment
Tools: Flask, CORS, JSON, SQL, Jupyter, NumPy, SciPy, Matplotlib, TensorFlow, Keras, PyTorch, OpenCV

Experience

Atlas School - Tulsa, OK   **April 2024 - Present**
Student Tutor

Guelph Church of Christ - Ontario, Canada   **January 2015 - March 2019**
Minister & Non-Profit Leader