

# Nathan Rhys

## Machine Learning Engineer

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### 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

3-year program focused on theological studies, teaching methodologies, cross-cultural communication, public speaking, and grass-roots fundraising

### Projects

#### Computer-Vision Transfer Learning | Solo Engineer

December 2024

[github.com/3lackrukh/atlas-machine\\_learning/supervised\\_learning/transfer\\_learning](https://github.com/3lackrukh/atlas-machine_learning/supervised_learning/transfer_learning)

- \* Achieved 94.5% 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](https://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](https://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

### Experience

Atlas School | Tulsa, OK

April 2024 - Present

Student Tutor

Guelph Church of Christ | Ontario, Canada

January 2015 - March 2019

Minister & Non-Profit Leader

### Professional Summary

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 and systems programming

### Skills

**Languages :** Python, Javascript, Typescript, C#, 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