

# Wyatt Black

Machine Learning Engineer & Software Developer

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[LinkedIn Profile](#)

[Portfolio Website](#)

Results-driven Computer Science student specializing in machine learning and neural network development. Proven experience implementing deep learning architectures from scratch using PyTorch, with demonstrated expertise in NLP, computer vision, and large-scale data processing. Combines strong theoretical foundation with practical application skills, seeking to contribute to innovative ML solutions in a collaborative engineering environment.

## TECHNICAL SKILLS

### PROGRAMMING

Python, Java, C/C#, JavaScript, SQL

### ML FRAMEWORKS

PyTorch, TensorFlow, scikit-learn, Transformers

### DATA & ANALYTICS

NumPy, Pandas, OpenCV, Matplotlib, Jupyter

### SPECIALIZATIONS

CNNs, LSTMs, NLP, Computer Vision, Model Optimization

## MACHINE LEARNING PROJECTS

### Sports Social Intelligence Engine

Python • PyTorch • NLP • Web Scraping • Transformers

Aug 2024 - Present

GitHub

- Architected real-time sentiment analysis system processing 1000+ daily posts from Reddit, Twitter, and news sources
- Implemented transformer-based models for multi-class sentiment classification and topic extraction with 85%+ accuracy
- Built automated narrative generation pipeline creating coherent storyline summaries from fan reaction data
- Designed scalable microservices architecture with real-time dashboard for MLB analytics insights

## Bidirectional LSTM Sentiment Classifier

PyTorch • Deep Learning • NLP • Neural Networks

Jul – Aug 2024

GitHub

- Developed bidirectional LSTM achieving 87% accuracy on IMDB movie review classification dataset
- Implemented custom tokenization pipeline processing 50K+ reviews with efficient batch processing
- Applied advanced regularization techniques (dropout, gradient clipping) reducing overfitting by 15%
- Optimized hyperparameters through systematic grid search, improving model convergence speed by 30%

## CIFAR-10 Convolutional Neural Network

PyTorch • Computer Vision • CNNs • Image Processing

Jun – Jul 2024

GitHub

- Built custom CNN architecture from scratch achieving 72% accuracy on CIFAR-10 10-class image classification
- Implemented advanced convolution techniques including batch normalization and adaptive pooling strategies
- Optimized data augmentation pipeline processing 60K training images with efficient GPU utilization
- Conducted ablation studies on activation functions, demonstrating 8% performance improvement with ReLU variants

## PROFESSIONAL EXPERIENCE

### Teaching Assistant - Software Components (CSE 2221)

The Ohio State University, College of Engineering

Columbus, OH

Aug 2024 – Present

Java • Object-Oriented Programming • Software Engineering

- Mentor 25+ students in Java programming, component-based design, and formal specification methodologies
- Lead lab sessions covering advanced topics including recursion, data abstraction, and modular software design
- Provide detailed code reviews and feedback on programming assignments, maintaining 95% student satisfaction rate
- Collaborate with faculty to develop assessment criteria and ensure consistent grading standards

## Resident Advisor

### The Ohio State University, Drackett Tower

Columbus, OH

Dec 2024 - Present

- Supervise residential community of 40+ students, implementing programming initiatives that increased engagement by 25%
- Respond to crisis situations and policy violations with sound judgment, maintaining detailed incident documentation
- Develop and execute educational programs promoting academic success, wellness, and diversity awareness

## Youth Athletics & Engagement Specialist

### City of Middleburg Heights

Middleburg Heights, OH

Apr - Aug 2024

- Designed inclusive summer camp programs serving 100+ children, including specialized activities for special needs participants
- Managed logistics and scorekeeping operations for 50+ competitive baseball and softball games
- Collaborated with municipal staff to ensure safety protocols and program quality standards

## EDUCATION

## Bachelor of Science in Computer Science and Engineering

### The Ohio State University

Columbus, OH

Jan 2024 - May 2026

GPA: 3.69

**Relevant Coursework:** Data Structures & Algorithms, Software Engineering, Discrete Mathematics, Linear Algebra, Calculus III, Digital Logic Design, Object-Oriented Programming

## Japanese Language and Cultural Studies

### Fukuoka Institute of Technology

Fukuoka, Japan

Aug - Dec 2023

**International Experience:** Cultural immersion program developing cross-cultural communication skills and global perspective on technology innovation

## ACHIEVEMENTS & RECOGNITION

Dean's List - Spring 2024

International Study Abroad Scholar