

Deep Learning & Neural Network Architecture

CNNs, RNNs, Transformers, attention mechanisms, GANs. Implement architectures from papers and train on real datasets.

blootou.com | sales@blootou.com

Program Overview

PRICE
\$7,200

DURATION
12 weeks

FORMAT
Live

LEVEL
Advanced

CNNs, RNNs, Transformers, attention mechanisms, GANs. Implement architectures from papers and train on real datasets. This architect track is structured for adult learners who need practical, career-relevant depth without academic abstraction. Delivered as a live experience, the course combines guided milestones, implementation reviews, and applied exercises aligned with modern AI, engineering, and technical leadership work.

Outcomes

- Understand major neural network families and where each excels.
- Implement modern architectures from papers with practical rigor.
- Train deep models while managing optimization and generalization issues.
- Evaluate architecture choices with technical confidence.

Includes

- 12 live weeks with architecture builds and paper-to-code labs.
- Annotated implementations for CNNs, RNNs, Transformers, and GANs.
- Training diagnostics and performance troubleshooting sessions.

- Research reading framework for translating papers into working systems.

Syllabus

WEEK 1

Deep Learning System Foundations

Refresh tensors, optimization, and training mechanics as a base for architecture work.

Topics: Gradients, Backpropagation, Optimization setup

WEEK 4

Vision and Sequence Architectures

Implement CNN and recurrent structures and understand their representational strengths.

Topics: CNNs, RNNs and LSTMs, Sequence modeling

WEEK 8

Attention and Transformers

Learn the architectural shift behind modern language and multimodal systems.

Topics: Attention, Transformer blocks, Scaling behavior

WEEK 12

Generative Models and Architecture Review

Explore generative neural systems while comparing architecture tradeoffs in practice.

Topics: GANs, Representation learning, Model comparison

Instructor

Victor Romero

Victor researches deep learning systems and teaches advanced neural architectures through implementation, not hand-waving summaries.

This Blootou Intelligence syllabus is an admissions overview for planning and evaluation. Final cohort dates, live session timing, assessments, and platform access details are shared in the welcome packet after enrollment.

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