BUILD THE FUTURE WITH AI

NXP SEMICONDUCTORS × CTRL

Feb 23 Start • NXP Offices & SDSU • 10 weeks

PROJECT 01

Edge AI Development

Build embedded AI applications that run at the edge. Develop real-time inference systems using NXP's i.MX 8M Plus FRDM development boards and the eIQ machine learning SDK.

Preferred Skills: C/C++ programming, basic electronics, Linux command line, interest in hardware

You'll Learn: Embedded systems development, model optimization & quantization, real-time ML inference, hardware-software integration, edge deployment pipelines
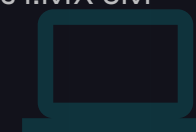
`i.MX 8M Plus FRDM` `eIQ SDK` `TensorFlow Lite` `Embedded C/C++` `Linux`

PROJECT 02

Agentic AI in the Cloud

Design and deploy autonomous AI agents that reason, plan, and execute complex tasks. Build scalable cloud infrastructure for next-generation intelligent systems.

Preferred Skills: Python programming, REST APIs, basic cloud concepts, familiarity with LLMs

You'll Learn: Agentic design patterns, prompt engineering, RAG architectures, cloud deployment (AWS/GCP), multi-agent orchestration, tool use & function calling

`LLM APIs` `LangChain` `AWS/GCP` `Python` `RAG Systems`

PROJECT 03

AI/ML for EDA

Apply machine learning to revolutionize electronic design automation. Tackle chip placement, routing optimization, timing analysis, and design verification challenges.

Preferred Skills: Python, ML fundamentals, linear algebra, interest in chip design or optimization problems

You'll Learn: Graph neural networks for circuits, reinforcement learning for optimization, EDA tool flows, VLSI design fundamentals, ML model deployment for CAD

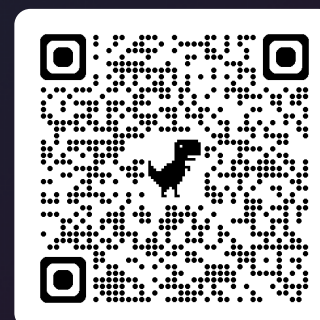`PyTorch` `Graph Neural Networks` `Reinforcement Learning` `VLSI CAD`

Ready to Make an Impact?

APPLY BY FEB 10

SCAN TO REGISTER →

✦ Hands-on Experience   ✦ Industry Mentors   ✦ Portfolio Projects   ✦ All Majors Welcome

NXP   **SDSU**   **[ctrl]**