



NEW AI DISCOVERY

AI Education for Students: After School Programs 2024

AI Innovators Academy for Gifted High School Students and STEM Enthusiasts

Program Highlights

- Intensive semester-long program for advanced AI learning
- In-depth exploration of cutting-edge AI technologies and applications
- Personalized learning paths based on individual interests and aptitudes
- Ongoing support and resources throughout the semester

Program Basics

- **Duration:** One Semester (8 weeks of instruction)
- **Price:** Starts at \$5,000 (\$25 per student per session)
- **Audience:** Gifted High School Students and STEM Enthusiasts
- **Obtained Expertise:** 95th Percentile
- **Participants:** From 20 to 60 participants

What's Included

- 8 In-Person Workshops (2 to 4 hours each, once per week)
- 8 Virtual Follow-up Sessions (90 minutes each, bi-weekly for 16 weeks)
- Comprehensive Learning Materials
- Students Innovator's Playbook (Digital + Physical)
- 1-year access to Emerson Library™ and Visionland™ platforms

Unique Experiences

- Hands-on AI tools and platforms exploration
- Industry-specific AI application sessions
- Interactive AI ethics and governance discussions

Curriculum Highlights

Module 1: Advanced AI Basics for Students

- Deep Dive into Machine Learning and Neural Networks (90% coverage)
- Advanced Natural Language Processing and Computer Vision (85% coverage)
- Cutting-edge AI Ethics and Governance (90% coverage)

Module 2: Advanced AI Applications and Projects

- Developing Complex AI Systems (90% coverage)
- AI in Scientific Research and Innovation (80% coverage)
- Advanced AI Project Development and Deployment (95% coverage)

Support and Resources

- Dedicated Slack workspace with 24/7 peer and mentor support
- 12-month unlimited access to premium Educational AI resources and research
- Monthly 1-on-1 sessions with AI professionals

Outcomes and Certification

- Comprehensive portfolio of AI projects and achievements
- Preparation for AI-related Advanced Placement or college-level exams
- AI Innovators Academy Diploma and Detailed Skills Assessment

Why Choose Our AI Executive Education

- Unparalleled depth in AI education for high school students
- Personalized learning experience tailored to individual interests and career goals
- Emphasis on practical, cutting-edge AI skills and project-based learning

Dates & Prices

Prices are in CAD. See complete terms and conditions [here](#).

After School Program starts at \$5,000. Transparent price information with clear learning objectives discussed during the Discovery conversation.

Get Started

Ready to challenge your students with advanced AI concepts and projects?

Contact us to apply for our exclusive After School Program.

Emerson Academy | Empowering Executives with AI Knowledge and Strategy

<http://emersonacademy.org> | **778 988 2570** | hello@emersonacademy.org

Detailed Curriculum Outline

WEEK 1-2: ADVANCED AI FOUNDATIONS

Session 1: Deep Dive into Machine Learning and Neural Networks (2-4 hours)

- Advanced neural network architectures (CNNs, RNNs, Transformers)
- Deep learning frameworks (TensorFlow, PyTorch)
- Lab: Building and training a complex neural network

Session 2: Advanced Natural Language Processing (2-4 hours)

- State-of-the-art NLP models (BERT, GPT)
- Sentiment analysis, named entity recognition, and text generation
- Project: Developing a sophisticated chatbot or language model

WEEK 3-4: COMPUTER VISION AND ROBOTICS

Session 3: Cutting-edge Computer Vision (2-4 hours)

- Advanced image recognition and object detection algorithms
- Generative Adversarial Networks (GANs) for image generation
- Workshop: Implementing a computer vision system for a real-world application

Session 4: AI in Robotics (2-4 hours)

- Robotic perception, planning, and control
- Reinforcement learning for robotic tasks
- Hands-on lab: Programming an AI-powered robot

WEEK 5-6: AI ETHICS, GOVERNANCE, AND SCIENTIFIC APPLICATIONS

Session 5: Advanced AI Ethics and Governance (2-4 hours)

- Ethical implications of AI in society
- AI policy and regulation on a global scale
- Debate: Addressing complex ethical dilemmas in AI development

Session 6: AI in Scientific Research and Innovation (2-4 hours)

- AI applications in various scientific domains (physics, biology, chemistry)
- Machine learning for scientific discovery
- Case study: Replicating a recent AI breakthrough in science

WEEK 7-8: ADVANCED AI PROJECT DEVELOPMENT

Session 7: AI System Design and Architecture (2-4 hours)

- Designing scalable AI systems
- Cloud computing and distributed AI
- Workshop: Architecting a complex AI solution

Session 8: AI Project Management and Deployment (2-4 hours)

- Agile methodologies for AI projects
- DevOps for AI: Continuous integration and deployment
- Lab: Deploying an AI model to a cloud platform

ONGOING: CAPSTONE PROJECT DEVELOPMENT

Throughout the semester, students will work on their individual Capstone AI Projects. This will include:

- Regular check-ins and mentorship sessions
- Peer review and feedback workshops

- Iterative development and testing

ADDITIONAL ACTIVITIES

- Participation in AI Competitions and Hackathons
- Guest lectures from industry experts and academics
- Virtual or in-person field trips to AI research labs or tech companies

FINAL SHOWCASE

At the end of the semester, students will present their Capstone AI Projects to peers, mentors, and invited guests from the AI industry and academia.

TRANSFORMATIONS & TAKEAWAYS

- Expert-level understanding of advanced AI concepts and technologies
- Hands-on experience with cutting-edge AI tools and frameworks
- Ability to design, develop, and deploy complex AI systems
- Deep awareness of ethical considerations and governance in AI
- Skills to contribute to scientific research and innovation using AI
- Project management and teamwork skills for AI development
- Preparation for university-level AI studies and early career opportunities

This intensive semester-long program is designed to challenge gifted students and STEM enthusiasts, providing them with university-level AI education and hands-on experience. Participants will gain the knowledge and skills to become future leaders in AI innovation and research.

POST-PROGRAM SUPPORT

- Ongoing access to the AI Innovators Network
- Mentorship opportunities with AI professionals
- Guidance on university applications and early career planning in AI
- Invitations to special AI events and conferences

Take Action Today

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