INSPIRIT AI

INSPIRIT AI in Queensland!

In-Person Artificial Intelligence intensive for middle and high school students taught by instructors from Stanford and MIT.

Apply at inspirit-queensland-24.paperform.co | www.inspiritai.com | +1 240 226 1366

Mission

WHY AI SCHOLARS?

We started Inspirit AI to inspire **students of all interests** at an early age to understand and apply Artificial Intelligence to **improve the world**. The potential to use this technology for good is limitless. We hope to bring the most recent developments in AI from courses and labs in Silicon Valley to **empower middle and high school students globally**.

WHAT IS AI SCHOLARS?

What do self-driving cars, Alexa, and iPhone's face recognition technology have in common? They are driven by modern advances in Artificial Intelligence. AI Scholars is an **enrichment program** that exposes curious middle and high school students globally to AI through in-person or live online intensive classes. The program is developed and taught exclusively by **Stanford, MIT and leading university alumni** and **graduate students** specializing in AI.

Inspirit AI Program Logistics: The Southport School

Class will meet daily from **Monday June 17 - Friday June 28, weekdays only:**

High School: 9:00am - 12:00pm
Middle School: 1:00pm - 4:00pm

Pricing: $1,600 USD

Prerequisites: Students in grades 6-12. Beginners are welcome, and advanced cohorts are available.

Apply Now:
inspirit-queensland-24.paperform.co

Contact: Jared Greene, Program Director, jaredgreene@inspiritai.com

The Southport School
(open to students from all schools)

Why AI Now?

Whether you're interested in *law, healthcare, art,* or *economics*, AI is poised to transform almost every discipline and industry in the future. At the core of Inspirit AI's mission is to equip our students to lead impactful and successful careers. AI is already all around us today, and by the end of the program, students will understand the underlying concepts and motivations behind technology such as:
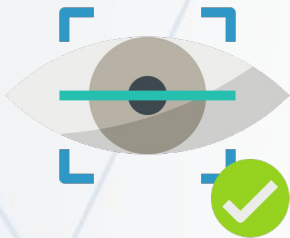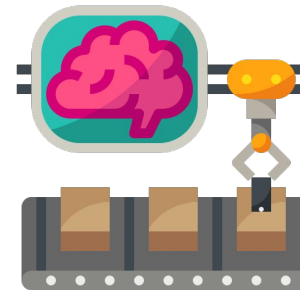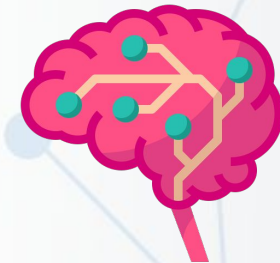
COMPUTER VISION	NATURAL LANGUAGE PROCESSING	RECOMMENDATION ENGINES	DEEP LEARNING
Self-Driving Cars	ChatGPT	Netflix	Google Translate
Facial Recognition	Alexa	Spotify	Autocorrect
Medical Diagnosis	Siri	Amazon	Chatbots

Our Team

DANIELA GANELIN
Director of Curriculum

Education: *MIT* Master's in Computer Science (AI), *MIT* Bachelor's in Computer Science and Math, *MIT* Teaching License
Research: Studying economic disparities in online education, diagnosing dementia with machine learning, creating AI-generated images, and improving recommendation engines.

ANNA SAPPINGTON
Instructor

Education: *Marshall Scholar* Graduate work in AI/ML, *MIT* Bachelor's in Computer Science and Biology
Research: Anna was part of multiple AI labs at MIT including Aviv Regev's lab and Sangeeta Bhatia' lab. She has applied AI to genomics with the goal of mapping every cell in the human body.

GRETA FARRELL
Curriculum Developer

Education: *MIT* Bachelor's in Economics
Teaching: Has experience student-teaching in a variety of schools: urban, rural, suburban, as well as public, charter, private, and boarding. Before joining Inspirit as a curriculum developer, she taught middle and high school math from pre-algebra to precalculus and developed mastery-based curricula at the Khan Lab School.

ARTEM TROTSYUK
Instructor

Education: *Stanford* PhD candidate in Bioengineering, *Stanford* Master's in Computer Science, *UC Davis* Bachelor's in Biology, Minors in Communication and Writing
Research: Using bioengineering tools coupled with artificial intelligence to improve wound healing outcomes in diabetic patients. Developing AI-powered smart bandages with a closed-loop system for personalized medicine.

AKSHAY JAGADEESH
Instructor

Education: *Harvard Medical School* Postdoctoral Neuroscience Fellow, *Stanford* PhD in Vision Science
Research & Teaching: Analyzing artificial neural networks and understanding what computations the human brain performs to give rise to perception. Helped design and teach several courses at UC Berkeley and Stanford ranging from computer vision to neurobiology to the science of meditation.

CHRIS PIECH
Faculty Advisor

Education: *Stanford* PhD in Artificial Intelligence, *Stanford* Bachelor's in Computer Science
Research & Teaching: Assistant Professor of Computer Science at Stanford, teaching introductory programming, probability, and artificial intelligence courses. Faculty advisor for the Stanford course, "Artificial Intelligence for Social Good."

Building a Global AI Classroom

We've had the fortune of guiding **students** with interests across healthcare, robotics, art, economics, journalism, and more from **70+ countries** in learning fundamental AI concepts, preparing for college admissions, and applying their passions to achieve social good. **45% of our students come to the program with no previous background in CS.**

A Global Learning Community

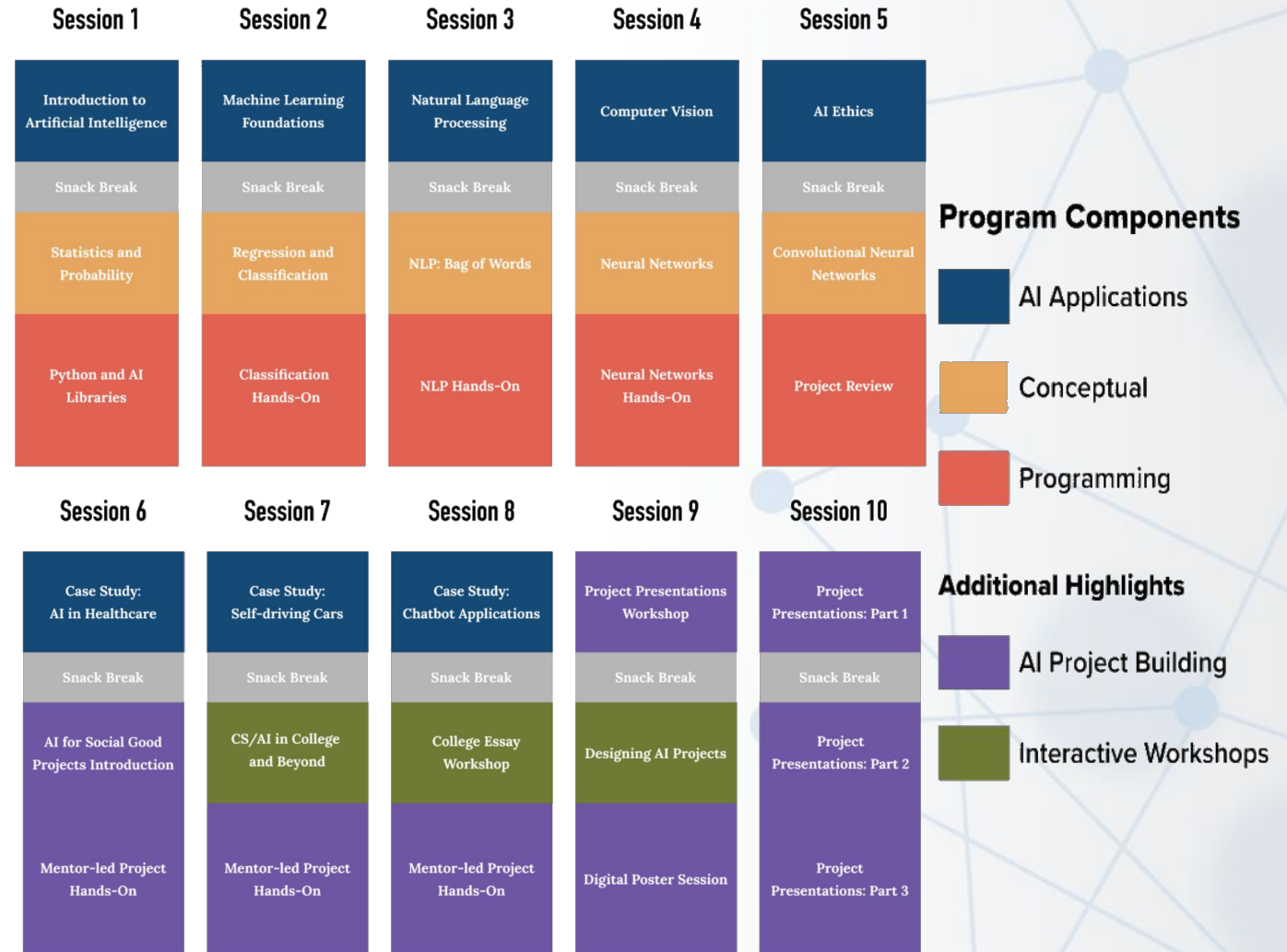| 70+	400+	75+	150+
Students from 70+ Countries	400+ Instructors from MIT and Stanford	75+ Partner Schools	150+ students accepted to Ivy League schools

High School Curriculum

Programs run for **10 sessions of 3 hours each** on weekdays.

In the first half of the program, students learn **AI's core technologies** including **applications**, **foundational concepts**, and **programming tools** through live in-person or online classes and collaborative mini-projects.

In the second half, students complete a **mentor-led AI for Social Good project** where they apply the programming skills developed in Part 1. Students also attend workshops aimed to provide inspiration for **college essays** and **AI-related careers**.

Session 1	Session 2	Session 3	Session 4	Session 5
Introduction to Artificial Intelligence	Machine Learning Foundations	Natural Language Processing	Computer Vision	AI Ethics
Snack Break	Snack Break	Snack Break	Snack Break	Snack Break
Statistics and Probability	Regression and Classification	NLP: Bag of Words	Neural Networks	Convolutional Neural Networks
Python and AI Libraries	Classification Hands-On	NLP Hands-On	Neural Networks Hands-On	Project Review

Session 6	Session 7	Session 8	Session 9	Session 10
Case Study: AI in Healthcare	Case Study: Self-driving Cars	Case Study: Chatbot Applications	Project Presentations Workshop	Project Presentations: Part 1
Snack Break	Snack Break	Snack Break	Snack Break	Snack Break
AI for Social Good Projects Introduction	CS/AI in College and Beyond	College Essay Workshop	Designing AI Projects	Project Presentations: Part 2
Mentor-led Project Hands-On	Mentor-led Project Hands-On	Mentor-led Project Hands-On	Digital Poster Session	Project Presentations: Part 3

Program Components

- AI Applications
- Conceptual
- Programming

Additional Highlights

- AI Project Building
- Interactive Workshops

Our High School Program

AI FOR SOCIAL GOOD PROJECT

Students develop fundamental AI skills and apply them to a **mentor-led group project** that they later **present** during a **final showcase**. Students gain access to an **online portal** for continuous learning after the program.

AI CAREERS AND VENTURES

Students learn from **industry** and **academic guest speakers** about AI's impact in domains such as healthcare, transportation, and chat applications. Students receive guidance on pursuing various careers that involve AI.

PRE-COLLEGE PREPARATION

Students attend **workshops** aimed to prepare them for leading CS and AI programs internationally. Students gain inspiration from successful Stanford and MIT **admissions essays** and learning how to communicate their project experiences effectively.

Featured High School Projects

AI can apply to almost **every discipline** from health to art, finance, and more. Our team of graduate students at leading U.S. universities have **diverse experiences** and will **mentor projects** in a variety of domains.

AI + Mental Health:

Digital Phenotyping to Detect Schizophrenia

In this project, students will modules such as **Pandas**, **Matplotlib**, and **Scikit-learn** to examine the distribution of **smartphone sensor** and **survey data**. Students will build models that will predict depression and relapses in the hopes of initiating preemptive treatment. Along the way, students will also discuss the **ethical implications** of data gathering and erroneous predictions.

DEVELOPED BY
Peter Washington
Stanford PhD Student and Researcher in AI + Accessibility

AI + Astronomy:

Searching for Exoplanets

In this project, students will use data collected from **NASA's Kepler space telescope** to train AI models to **detect** and **characterize exoplanets**. Finding exoplanets could help us discover **alien life**! Students will also gain experience in training models with **imbalanced classes of data**.

DEVELOPED BY
Kaylie Hausknecht
Harvard Astrophysics Student and NASA Intern

Featured High School Projects

AI + Healthcare:

DNA Detectives for COVID-19

In this project, students create machine learning models to **trace** the geographic origins of **COVID-19** strains to help understand its spread. Students learn about the biology behind the virus and techniques for working with **genomic data**. Students also apply advanced techniques like **dimensionality reduction** for building more accurate models from complex biological datasets.

DEVELOPED BY
Brianna Chrisman
Stanford PhD in computational genomics

AI + Finance:

Stock Sentiment Analysis

In this project, students use AI to **predict stock market trends** based on financial news and Tweets. Over the course of the project, students will learn about financial analysis and use state-of-the-art **Natural Language Processing models** like LSTMs and Google's new BERT algorithm to make stock market predictions with high accuracy.

DEVELOPED BY
Aansh Shah
Brown University M.S. in Computer Science and Amazon Engineer

Middle School Curriculum

In this **10-session, 30-hour** project-based program, we will explore the foundations of machine learning & explore different applications of machine learning models.

In the first half of the course, students **learn AI's core technologies** including applications, foundational concepts, & programming tools through live online lectures and coding labs. Students will not only learn about different types of machine learning models, but also **apply those models to real data sets.** In the second half of the course, students will complete an **instructor-led group project applying AI to a particular discipline** (e.g., music, healthcare, astrophysics, finance, etc.), utilizing their new programming skills!

Unit 1: NLP + Healthcare

Unit 1 Class Format
- Instructor-Led Discussion
- Coding Lab

Unit 1 Sample Class
- Healthcare AI Ethics
- Detecting Heart Disease

Unit 2: Computer Vision

Unit 2 Class Format
- Instructor-Led Discussion
- Coding Lab

Unit 2 Sample Class
- Self-Driving Car Ethics
- Vision for Self-Driving Cars

Unit 3: Machine Learning Final Projects

Unit 3 Class Format
- Workshop
- Coding Project

Unit 3 Sample Class
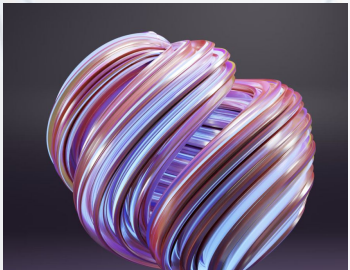- Instructor AI Research Spotlights
- Final Project Work: Drawing Recognition or Movie Recommendation System

Featured Middle School Projects

AI + Disaster Relief

Leverage machine learning to help first responders allocate resources in crisis situations

AI + Art

Train models to recognize and complete sketches to create interactive & accessible computer systems

AI + Public Health

Use computer vision to determine whether people are wearing masks properly to improve public health

Inspirit AI in Leading Schools

We're proud to collaborate with schools and districts to offer **summer programs**, **in-school elective, after school programs** taught by our experienced top university AI instructors! Among our many collaborations include:

THE BRITISH SCHOOL MANILA

Inspirit partnered with British School Manila, a premier school in the Philippines, to bring an **after-school AI enrichment** activity to high schoolers.

KHAN LAB SCHOOL

Inspirit worked with Sal Khan's project-based school to offer a full-year **school-day elective** in the foundations and applications of machine learning.

Winchester Thurston School

Inspirit collaborated with Winchester Thurston to integrate **capstone projects** into its innovative course "Machine Learning and the Social Implications of AI"
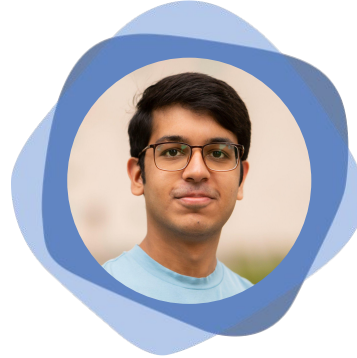
Student Highlights

Kalissa G.
Now at Stanford University
Inspirit Project: AI + Social Justice

"I collaborated on an AI project that focused on social justice … The program enhanced my interest in pursuing a degree in Computer Science during my freshman year at Stanford."

Arnav Das
Now at CalTech
Inspirit Project: AI + Exoplanet Discovery

"The Inspirit program enabled me to dive into the math behind Machine Learning and develop practical skills that I have applied to further AI passion projects including Deep Learning for planetary research."

Ananya G.
Now at Princeton University
Inspirit Project: AI + Journalism

"The summer program was a great experience … I enjoyed dwelling on ethical questions and learning about applications of AI directly from people working to create them."

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Alumni Case Study 1:
Demonstrate unique passion to college admissions committees

Ananya Grover
Currently Attending:
Princeton University

AI + Journalism

How did the AI Scholars Program impact your college preparation?

The Inspirit AI summer program was a great experience and **addition to my preparation for college**. I benefited from the insightful conversations I had with our instructors who also helped me post-Inspirit AI, including during the college application process.

How did the AI Passion Project help you stand out in the college admissions process?

On top of working with code, I enjoyed dwelling on ethical questions and learning about applications of AI directly from people working to create them. At the intersection of **my passions for tech and journalism**, I got to work on a fake news detection AI model, create a student poster, and present it with my team. I believe projects like that one that span different interests are both fun to work on and a **good way to demonstrate your passion.**

Read more about Ananya's Journey Applying AI to Journalism

Alumni Case Study 2:
Display collaborative skills through teamwork

Kalissa Greene
Currently Attending:
Stanford University

Stanford University

AI + Social Justice

How did the AI Scholars Program impact your college preparation?

The AI Scholars program gave me a much broader view of computer science and helped me better prepare for college. It also gave me a chance to develop an independent passion project that I drove alongside my fellow Inspirit AI classmates, which I think helped me stand out in my college applications.

How did the AI Passion Project help you stand out in the college admissions process?

As an AI Scholar this year, I collaborated on an AI project that focused on social justice and engaged with fellow students and instructors who have a passion for AI. Having this opportunity to advance my AI skills and learn how AI can be used in so many ways to positively impact society was an invaluable experience prior to college. The AI Scholars program enhanced my interest in pursuing a degree in Computer Science with a concentration in AI. I am thrilled to now have an opportunity to serve as an AI Leadership Fellow during my freshman year at Stanford.

Read more about Kalissa Journey Applying AI to Social Justice

Instructor and Student Experiences

Sehj Kashyap (Stanford MS in BioEngineering), Sedinam Worlanyo (Stanford MS Education)

Aashi Tyagi (Student, Dubai and Currently studying CS and Business at UIUC)

AI Scholars Alumni Admissions

Since the program's inception:

500+ Inspirit AI Scholars have been accepted to undergraduate degrees at **Harvard, Yale, Princeton, Stanford, MIT, UC Berkeley, Oxford, and Cambridge, among many other top universities worldwide.** We are proud to have **150+ alumni accepted to Ivy League schools.**

A snapshot of where our alumni have been admitted:

**Princeton:
9 acceptances**

**Stanford:
17 acceptances**

**Harvard:
9 acceptances**

**University of Pennsylvania:
25 acceptances**

**University of Cambridge:
2 acceptances**

**UC Berkeley:
38 acceptances**

Inspiring the Next Generation of Leaders: From High School to Higher Education

Our scholars come from schools from around the world and often attend the world's most prestigious higher education institutions. Here is a snapshot of some of our students' journeys.
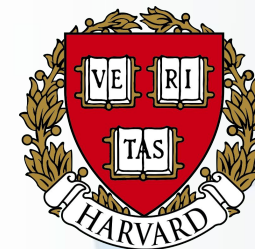
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