

**Curriculum/Program Overview:**

We offer 2 different programs to help our students learn programming and data science/artificial intelligence. This current term will be our 2nd semester where we cover AI topics, data manipulation, machine learning, and more. Students are expected to be proficient in Python since our 1st semester already covered the fundamentals of Python programming (loops, lists, I/O, etc). One cool aspect about our program is that we provide students with a capstone project, allowing them to showcase their project for future employers. Our capstone project ideas range from creating a cancer detection system to building a stock market prediction software!

**Calendar:**

<b>Date:</b>	<b>Time:</b>	<b>Topics Covered:</b>
September 9th	2:30 to 3:30	What are Machine Learning & Data Science and what can we use them for?
September 16th	2:30 to 3:30	How can we use Pandas to find and understand datasets?
September 23rd	2:30 to 3:30	How does machine learning really work?
September 30rd	2:30 to 3:30	What is a K-Nearest Neighbors model and how can we use scikit-learn to implement it?
October 7th	2:30 to 3:30	What is the difference between regression and classification and how can we train a linear regression model?
October 14th	2:30 to 3:30	How can we effectively train models even when we don't have enough data?
October 21st	2:30 to 3:30	Capstone Project pt. 1
October 28th	2:30 to 3:30	Capstone Project pt. 2

**Materials Needed:**

- Personal laptop (preferably) or phone w/ school Chromebook.

**FAQ's:**

Will this be free or for a fee?

- The course is completely free for students!

How many kids will there be?

- While we are teaching group lessons through Zoom, we plan to set aside time for one-on-one work to support students individually.