



BROWN
Division of Pre-College
and Undergraduate Programs

2024 Pre-College Program Course Performance Report

Student Name: Ata Kilic

Course Title: Introduction to Machine Learning and AI with Python

Instructor Name(s): Xiuquan Wang

Program: Summer@Brown

Course Description: This course is designed to help you learn, understand, and practice big data analytics and machine learning approaches, which includes the study of modern computing big data technologies and scaling up machine learning techniques focusing on industry applications. We will learn about the functionality of the algorithm and theory without relying on complex math. In this way, you will master the fundamental theories in machine learning through theoretical study, understanding the latest developments, and learning to design algorithms for specific problems in their respective disciplines.

By the end of this class, you will:

- Understand basic AI concepts;
- Understand the applications and implications of data science in various disciplines;
- Use the essential machine learning techniques;
- Understanding machine learning algorithms without the knowledge of university-level math;
- Deploy appropriate algorithms for specific scientific research problems; and
- Have formulated a plan for starting a college career in data science.

Our classroom is a studio class, where sessions will involve a series of activities interwoven within lectures. In some instances, we will adopt a flipped-classroom approach where prior to the face-to-face session, you will gain exposure to new concepts and material by watching lecture videos, doing guided readings, and/or completing the required activities online. During class, we will do active work that calls for the analysis and/or application of the concepts and material learned prior to class. There will be classroom discussions, dialogues, and exercises led by the instructor. You are expected to actively participate in these discussions and to work on the particular exercises that allow you and your peers to learn by doing, to learn by observing the results of others, and to learn from one another while trying out new ideas. You will also learn through computer programming, by interacting with your professor and other students, and through the professor's instruction and external media.

For the following statements, instructors reflected on this student's performance using the following scale: Never, Rarely, Sometimes, Most of the time, Always, N/A. Please review your instructor's responses to each question and then read the narrative student evaluation below.

This student completed assignments on time.: Always

This student submitted quality work.: Always

This student productively collaborated with their peers.: Always

This student displayed strong engagement with the course and course materials.: Always

This student constructively contributed to the course content or classroom environment.: Always

This student was responsive to feedback.: Always

Student Evaluation:

Please share feedback on the student's strengths as displayed during your course.

Ata demonstrated exceptional creativity and technical skill in developing a deep neural network (DNN) model from scratch to identify human voices. His dedication to the project was evident, especially in the successful training of the model and the innovative approach of using his own voice for testing. Ata showed strong problem-solving abilities and a deep understanding of machine learning concepts.

Please share constructive feedback on areas of improvement as displayed during your course.

Ata could benefit from refining the model's accuracy and exploring additional data preprocessing techniques to enhance the overall performance.

Please share highlights of the student's course assignments, group work, level and type of engagement, collaboration, and student growth.

Ata's project was a standout in terms of complexity and innovation. His engagement with the course material was consistently high, and he showed significant growth in both his technical skills and his ability to apply theoretical concepts to practical challenges. His final presentation was clear and well-organized, demonstrating his deep understanding of the subject matter.