Introduction to Programming and Software Development Internship

Week 1: Basics of Programming

Day 1 - Introduction and Setup

Introduction to the company, team, and projects. Introduction to software engineering and programming. Set up a development environment on his computer (install Python, virtual environment, git and, a beginner-friendly IDE like VS Code).

Day 2 - Coding Basics

Introduction to Python. Teach him about variables, data types, and basic operators.

Day 3 - Control Flow

Introduction to control flow: if-else statements and loops.

Day 4 - Functions and Data Structures

Basics of defining and using functions. Introduction to basic data structures: lists and dictionaries.

Day 5 - Object Oriented Programming and a Bonus Project

Basics of object oriented programming and classes. And apply the concepts learned so far into a tex-based game in different versions.

Week 2: Introduction to Web Development

Day 6 - Introduction to HTML

Basics of HTML and building a simple webpage.

Day 7 - Introduction to CSS

Styling the webpage created on Day 6 with CSS.

Day 8 - Introduction to JavaScript

Basics of JavaScript for interactivity on the webpage.

Day 9 - Continuing JavaScript

Furthering understanding of JavaScript and enhancing the webpage with more interactive features.

Day 10 - Final Project

Use Python, HTML, CSS, and JavaScript to create a simple web-based project. This could be an interactive quiz or a personal portfolio webpage.

Week 2: Introduction to AI and Machine Learning

Day 6 - Introduction to AI and Machine Learning

Broad overview of AI, Machine Learning, and its applications. Introduction to Python libraries used in AI (like NumPy and Pandas).

Day 7 - Basic Data Analysis

Learning how to handle data using Pandas. Basic data analysis and visualization using Matplotlib or Seaborn.

Day 8 - Introduction to Machine Learning Algorithms

Discuss the basic concept of a machine learning model. Introduction to a simple algorithm, like linear regression.

Day 9 - Training a Machine Learning Model

Using scikit-learn, a machine learning library in Python, to train a basic linear regression model. Introduction to the concepts of training and testing data.

Day 10 - Simple AI Project

Apply the concepts learned to a simple project, such as predicting house prices using a basic dataset like the Boston Housing dataset.