Tech Learning Plan with Narration & Justification

Step 1: Diving into Prompt Engineering

- 1. Basics of Al & Natural Language Processing (NLP)
 - Al for Everyone by Andrew Ng: Course on Coursera

Narration: This course is a perfect starting point for understanding Al concepts, especially for beginners. It demystifies how Al works and how it impacts various industries, making it easier to grasp more technical aspects later.

Justification: Having a foundational understanding of AI is crucial, as it provides context for what your friend will encounter in prompt engineering.

 Overview of LLMs: An article explaining how large language models like ChatGPT work.

Narration: This overview will break down complex concepts into digestible chunks. Understanding LLMs' workings helps make sense of how prompts generate responses.

Justification: Knowing how models think and generate text empowers your friend to craft better prompts.

2. Hands-on with Prompt Engineering

OpenAI's ChatGPT & Playground: OpenAI Playground
 Narration: This tool allows experimenting with various prompts and understanding how small changes can alter AI behavior.

 Justification: Hands-on practice is essential for mastering prompt engineering,

and this playground offers a safe environment to experiment.

Learn Prompting Guide: <u>Learn Prompting</u>

Narration: This guide provides structured lessons and real-world examples to enhance learning.

Justification: It's beneficial to learn from a curated resource that covers both basics and advanced techniques.

Step 2: Choosing a Tech Focus

- 1. Web Development (For Building Websites and Apps)
 - Frontend Development:
 - HTML & CSS Basics: <u>freeCodeCamp's Responsive Web Design</u>
 Narration: Starting with HTML and CSS is fundamental for building the

visual part of websites. FreeCodeCamp provides a structured way to learn these skills.

Justification: Mastering HTML and CSS lays a solid foundation for any web developer, as they are essential for creating and styling web content.

- JavaScript Foundations: <u>JavaScript 30</u>

Narration: This course offers a project-based approach to learning JavaScript, making the learning process engaging and practical. **Justification**: JavaScript is the backbone of dynamic websites, and understanding it early on opens up more opportunities in web development.

- React Basics: React Official Tutorial

Narration: React is a powerful library for building user interfaces, and this official tutorial is beginner-friendly.

Justification: Learning React equips your friend to create interactive and efficient web applications.

- Backend Development:

- Django for Beginners: Django Girls Tutorial

Narration: This tutorial provides a simple and accessible way to learn backend development using Python.

Justification: Django is great for quickly building secure and scalable web applications, making it a strong choice for backend development.

Node.js Basics: <u>The Odin Project</u>

Narration: The Odin Project offers comprehensive lessons on building backend systems using JavaScript.

Justification: Node.js is popular for creating fast and efficient server-side applications, so understanding it is valuable for full-stack development.

2. Data Analysis & Data Science (For Working with Data)

- Python for Data Analysis: <u>DataCamp's Python Programming Track</u>

Narration: This track teaches Python, the go-to language for data analysis, in an interactive and fun way.

Justification: Python is widely used in data science, and having these skills opens doors to analyzing and visualizing data effectively.

- Pandas and Data Visualization: Python for Data Analysis Book

Narration: This book by Wes McKinney, the creator of Pandas, is a must-read for mastering data manipulation and visualization.

Justification: Data analysis and visualization are core skills for extracting meaningful insights from data.

- Kaggle for Practice: Kaggle

Narration: Kaggle is a hub for data science enthusiasts to practice, compete, and learn from real-world datasets.

Justification: Practical experience is crucial, and Kaggle provides a platform to apply and refine data skills.

3. Cloud Computing & DevOps (For Infrastructure and Deployment)

AWS Cloud Practitioner Essentials: AWS Training

Narration: This course covers cloud fundamentals and AWS services, making it ideal for beginners.

Justification: Cloud computing is at the heart of modern tech infrastructure, and AWS skills are highly marketable.

Google Cloud Skills Boost: Google Cloud Training

Narration: Google Cloud offers training modules tailored to different cloud technologies.

Justification: Understanding multiple cloud platforms can make your friend versatile in tech.

- Learn Docker Basics: <u>Docker's Official Documentation</u>

Narration: Docker is a containerization tool that simplifies deploying applications, and learning it will give a head start in DevOps.

Justification: Containerization is a key DevOps skill, and Docker is an industry-standard tool.

4. Machine Learning & AI (For Advanced AI Projects)

- Machine Learning by Andrew Ng: Course on Coursera

Narration: This course provides a comprehensive introduction to machine learning, covering algorithms and their applications.

Justification: It's a classic course that builds a solid foundation for anyone interested in Al.

Fast.ai's Practical Deep Learning: <u>Fast.ai</u>

Narration: Fast.ai focuses on making deep learning accessible and practical for everyone.

Justification: Learning practical applications of AI is essential for understanding how to use it effectively.

- Building Models with TensorFlow: <u>TensorFlow Tutorials</u>

Narration: TensorFlow is one of the leading frameworks for building and deploying AI models.

Justification: Familiarity with TensorFlow can open opportunities in Al research and development.

Step 3: Building Projects & Gaining Experience

- **Create a Personal Website**: Showcase what she's learned using HTML, CSS, and JavaScript.

Narration: Building a personal website is a fun and rewarding way to show off skills and projects.

Justification: A portfolio site is a powerful tool for job applications and networking.

- **Analyze a Kaggle Dataset**: Post findings on GitHub or write a blog.

Narration: Data projects are impressive, and sharing them demonstrates analytical and problem-solving skills.

Justification: Real-world experience in data analysis is highly valued in the job market.

Step 4: Portfolio & Networking

- GitHub Setup: GitHub Guides

Narration: Setting up a GitHub profile and sharing code showcases her coding journey to potential employers.

Justification: A strong GitHub profile is a must-have for tech roles, as it serves as an online portfolio.

- LinkedIn Profile: LinkedIn Learning

Narration: Building a LinkedIn profile and connecting with tech professionals is essential for networking and job opportunities.

Justification: LinkedIn helps in professional networking and discovering job opportunities.

I hope this helps her on her tech journey! Feel free to share any feedback or questions she might have.