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Course Overview:

The Artificial Intelligence (AI) course provides the student with a comprehensive understanding of the foundations and practices in leveraging AI to enhance productivity in daily tasks as well as career advancements in Content creation and technical aspects using AI tools like chatGPT, midjourney, Dall-E and others.

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
Week 1	Day 1	1. Introduction to Artificial Intelligence (AI)	This module introduces students into the nitty-gritty of AI and and how AI can boost productivity and enhance workflow.	1. Introduction to AI 2. Categories of AI 3. Branches of AI. 4. Supervised and Unsupervised + Reinforcemeng Learning. 5. AI's role in different industries. 6. Challeges and Limitations of AI. 7. Course Overview	1.0
✔	✔	2. Understanding ChatGPT: A look behind the scenes	Students will be introduced to chatGPT and understanding the basics along the with the What, How and Why of the chatbot.	1. What? How? Why? 2. ChatGPT Basics 3. A look behind the Scenes 4. Under the hood	1.0
✔	Day 2	3. Understanding ChatGPT: A look behind the scenes II	This Section continues on the earlier introdution to chatGPT, and delves deeper into it	1. NLP 2. LLMs 3. Limitations. 4. Tokens	1.0
✔	✔	4. ChatGPT Basics	Students will ventures into chatGPT, how to write initial prompts and how to navigate the interface.	1. User Interface 2. Writing Prompts 3. Advanced Data Analysis: Formerly code interpreter Basics	0.5
✔	Day 3	5. ChatGPT Basics II	Students will further learn tricks on how to navigate through chatGPT	1. Working with third party Plugins 2. Browsing the web 3. GPT Model Versions and chatGPT Plus 4. Hllucinations 5. continue output genneration 6. Editing and regenerating prompts	1.0

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✓	✓	Google Bard and Microsoft Bing chat: A closer look	In this module, we explore alternatives to chatGPT, which includes Bing chat and Bard	1. Getting started with bing chat 2. Bing incorporates web search 3. Using Creative, balanced, precise modes 4. Bing Chat Integration in Edge. 5. Using the compose tab in edge for emails, blog posts etc 6. Introducing Google Bard and its special features. 7. Comparisons between ChatGPT Vs. Bing chat Vs. Bard	1.0
Week 2	Day 4	5. Prompt Engineering	Students will learn indepth how to write efficient prompts for different needs and use cases and how integral prompts are for utitlizing chatbots	1. Prompt Engineering: ChatGPT What and Why? 2. Prompt Engineering and ChatGPT Custome Instructions 3, Elements of a Good Prompt 4. It's a chatbot 5. What Contexts to Add.	0.2
✓	✓	6. Prompting Techniques	Students will learn various prompting techniques used to gain the best from chatGPT	1. Directional Prompting 2. Output Formatting 3. Zero-,One- and Few-shot prompting 4. Ask before Answer prompting 5. Contextual Prompting	0.9
✓	Day 4	7. Prompting Techniques II	✓	6. Emotional Prompting 7. Laddering Prompting 8. Self Evaluation Prompting. 9. Structural Prompting 10. Instyle Prompting. 11. Fiding Prompt Inspirations 12. Super Prompts e.g. CAN, DAN	1.0
✓	Day 5	8. Generating and Analyzing images with chatGPT and Dall-E 3	Students should know how to generate images online using Plugins like Dall-E 3 in ChatGPTand also Using Bing	1. ChatGPT and its image handling capabilites. 2. Acessing Dall E 3 via ChatGPT and Bing. 3. Generating an Image 4. Ensuring that context matters 5. Alternatives: Bing chat and midjourney Limitations and Problems	1.0

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
✓	✓	9. Generating and Analyzing images with chatGPT and Dall E-3 II	Students will understand the Techniques used for creating images, Analyzing images properly.	1. Applying prompt engineering techniques 2. Controlling image angle and aspect ratio 3. Creating illustration and content based images 4. Analyzing uploaded images 5. Demo: creating a website based on an uploaded image 6. Creating similar images and keeping a style across multiple images	1.0
✓	Day 6	10. Using ChatGPT for utility tasks	Students will understand how to use ChatGPT to handle various daily activities as they may occur and how we can leverage it to enhannce productivity and efficiency	1. Researching informtion with chatGPT 2. Summarizing Text and information 3. Translations and tone adjustments 4. Using chatGPT for proof reading. 5. Writing utility scripts with chatGPT	1.0
✓	✓	11. Working with Advanced Data Analysis Features	Students will know how to use chatGPT to analyze data and use it to gain insights from data, AS well as writing and executing codes within chatGPT.	1. Advanced Data Analysis and Restrictions. 2. How to use Advanced Data Analysis Feature. 3. Downloading, Uploading files and restrictions workaround. 4. Forcing chatGPT to use Advanced Data Analysis. 5. Disabling code editor and dummy data generation.	1.0
Week 3	Day 7	12. Working with Advanced Data Analysis Features II	This module introduces Data Analysis, the steps taking from preprocessing and transformation to visulaizing data ana gaining insights.	1. Data Analytics intro 2. Data preparation with advanced data analysis support 3. Analyzing and Visualizing data 4. Analyzing and transforming images. 5. Editing and creating images. 6. Using Advnced data analysis for optical character recognition(OCR)	1.0

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
✓	✓	13. Using chatGPT for content creation.	Students will understand how to use chatGPT to create contents for blog posting, generating emails, creating Cvs, Youtube scripts and copywriting.	1. Generating articles 2. Steps by steps in creating an article. 3. Using a single prompt to create articles. 4. Finding creative articles and summarizing articles. 5. Writing professional Youtube Video scripts with chatGPT. 6. Using chatGPT as a copywriter	0.5
✓	Day 8	14. Using chatGPT for content creation II	...this module continues from the earlier section and dives into social media and lots more!.	1.Boosting your social media accounts with chatGPT. 2. Preparing for interviews. 3. Job related writing. 4. CVs and Cover Letters. 5. Creating sample data wity chatGPT(.Json, .csv)	0.5
✓	✓	15. Midjourney: An Introdution.	Students will be able to create images using an AI image generating tool in Discord as well as other techniques and keywrods used in generating images.	1. Introduction. 2. Using midjourney in discord. 3. Creating our first images. 4. Understanding Variations, Upscaling and regenerations. 5. Editing upscaled images.	1.0
✓	Day 9	16. Midjourney: Cont'd...	This continues from the earlier module and treats other aspects of midjourney and how to optimize it efficiently.	1. Exploring the settings. 2. Images and prompts are public. 3. Inspiration from community prompts. 4. Deleting, Uploaing and describing images. 5. Blending images.	1.0

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
✓	✓	17. Deep Dive Writing Efficient Prompts with midjourney.	This module explains to students the complex techiques and facets for prompting in midjourney and using it.	1. Different Version-different image. 2. Creating a prompting Template. 3. The medium: From photo to comic to 3D-Animations. 4. Defining the main content of the image. 5. Changing the perspective. 6. Selecting an image style. 7. Working with th background and the atmosphere.	0.5
✓	Day 10	18. Deep Dive Writing Efficient prompts with midjourney II	...this module takes a further steps from the erlier module, learn how to use paramters and icons	1. photorealistic food images with three words and recreating art and artisit styles. 2. Recereating movie styles. 3. Parameters and practice. 4. Creating reusable prompt templates. 5. Creating icons 6. The remix mode.	1.0
✓	✓	19. Hands on chatGPT and midjourney for content creation	This module focuses students on utilizing all the lessons in chatGPT and midjourney for creating Contents.	1. Generating a list of keywords with ask before answering. 3. Creating an outline: Emotional + ladering prompting technique. 4. Identifying improvement potential wit chatGPT. 5. Image generation with chatGPT and Thumbnail generation with midjourney. 6. SEO wih chatGPT, Adding links to the article. 7. Formatting as Markdown and facing chatGPT limitations and problems. 8. Generating a Youtube script, Creating email newsletter,and generating a tweet module summary.	1.0

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
Week 4	Day 11	20. Exploring other AI tools to create images and speeches.	In this module, students learn other techniques to gennerate images such as Dall-E 2 and also how to generate voices and speeches using Eleven Labs.	1. Getting started with Dall-E 2. 2. Editing images with inpainting. 3. Expanding images with outpainting. 4. Editing uploaded images. 5. Introducing eleven labs generative Voice AI. 6. Recreating your voice with generative AI.	1.0
✓	✓	21. Using chatGPT for programming and Development	Here students will be taught the use of chatGPT for programming and performing coding tasks, from debugging code, to building code blocs and lots more!.	1. Using ChatGPT with and without programming experience. 2. Using ChatGPT for building entire programming experience. 3. Using Generated code and letting chatGPT help you. 4. Iterative development: Test and improve. 5. ChatGPT for coding: Limitations. 6. ChatGPT with coding expeerience prefer building blocs. 7. Creating a building bloc with chatGPT.	0.5
✓	Day 12	✓	✓	1. ChatGPT Vs Github copilot. 2. Reminder: Always use the laddering technique. 3. Merging code with chatGPT and continuing with code formatting. 4. Avoiding unneccessary expalnations in chatGPT Output. 5. Debugging with ChatGPT. 6. Letting chatGPT explain code. 7. Generating code improvement ideas in chatGPT. 8. Refactoring in chatGPT. 9. Generating dummy data in chatGPT. 10. Module summary	0.5

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
✓	✓	22. Hands on ChatGPT for Developers and Non-Developers	This module encapuslates the carrying out tasks as a developers and non developer, ranging from those requiring technical skills and simple tasks that does not require technicalities.	1. Non Developers: The task and target application(Monster slayer game). 2. Buidling a game: Initial prompt and base game code. 3. Game enhancement and bugfixing. 4. Adding difficulty level. 5. Adding a highscore. 6. Iterative development: Imporving the game and using the "Ask before Answer Technique".	1.0
✓	Day 13	✓	...the previous module continues from the earlier, but focuses on those for Developers.	1. Developers: The task and target application. 2. Creating a basic rest API skeleton. 3. Adding app logic. 4. Testing the rest API. 5. Added validation. 6. Adding Authentiction. 7. Protecting routes against unauthenticated access. 8. Improving error handling and identifyng more improvement.	0.5
✓	✓	23. Using GPT APIs	This module shows students how to interact Using the GPT Application programming Interface.	1. Comparing ChatGPT and the openAI APIs 2. GPT3.5 and 4: Choosing the right API model. 3. Understanding Tokens and API pricing. 4. prerequisies to use the API. 5. Understanding the difference between completion and chat completion endpoints. 6. Creating our first python app using the API 7. Understanding the API. 8. Adding parameters.	0.5

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
Week 5	Day 14	24. Using GPT APIs II	✓	1. Adding the APIs response object. 2. Why roles matters: Understanding system, User and Assistant. 3. Recreating a simple chatGPT clone with python and the API. 4. Creating a Text summarization tool. 5. Processing Text from files and create new files with API generated content.	0.5
✓	✓	25. AutoGPT and Langchain: Building Automated AI tools	Students will learn how to automate processes that require repetitions using AI tools	1. What is AutoGPT? 2. AutoGPT Overview and prerequisites. 3. Installing AutoGPT. 4. Configuring AutoGPT. 5. Running AutoGPT. 6. Using AutoGPT for AI Automation. 7. What is Langchain? 8. Installing Langchain. 9. Langchain-first steps. 10. Creating a first AI tool with Langchain. 11. Using Langchain Objects for Automation.	0.5

WEEK	DAY	MODULE	OBJECTIVES	TOPICS	HOURS
✓	Day 15	26. AI Tools for Developers, Github Copilot chat, Cursor IDE.	In this module, trainees will learn how Developers can leverage AI tools for their tasks during programming.	1. Introducing and installing Github copilot. 2. The starting project setup. 3. How Github copilot works and can be used. 4. Copiilot prompt Engineering Triggering completions via variable names. 5. Github copilot and comment based prompting. 6. Introudicng Github copilot chat. 7. Getting started and explaining code with Github copilot chat. 8. Fixing errors and generating unit tests with copilot chat	0.5
✓	✓	27. AI Tools for Developers, Github Copilot chat, Cursor IDE.	✓	1. Introducing Cursor IDE(AI-first IDE. 2. Using Curosr for chat and code generation. 3. Using cursor automatic error fixing feature. Generating dummy data with cursor. 4. Changing code with Cursor. 5. Building complex prompts with file&documentation context. 6. Fixing runtime errors with cursor.	0.5
✓				Total	24.00