AI & Generative AI for Product and Business Innovation Workshop and Training Curriculum

Pre-class Preparation

AI and Generative AI history, opportunities, methodologies, LLM algorithms, MLOps

We provide textbooks, videos and many other resources in addition to the LIVE training to get you up to speed with the AI and Generative AI concepts that will help you during the training. With these resources, we explore the foundational concepts, key players, and essential strategies for successfully leveraging generative AI techniques in the world of business and product development.

Week 1 Workshop

Identifying opportunities for AI and generative AI

Week 1 of our program is geared towards leveraging key innovation frameworks to identify viable opportunities in AI and Generative AI. The session will kick-start with a deep dive into the Design Sprint methodology, a time-constrained, five-phase process that uses design thinking to reduce the risk when bringing a new product, service or a feature to the market. You'll be guided

on how to condense months of work into a few hours to encourage problem-solving through the rapid creation of prototypes and the validation of ideas.

Next, we will delve into the Buyer Utility Map and Strategy Canvas from Blue Ocean Strategy. The Buyer Utility Map will assist you in identifying key areas in the buyer's experience cycle where generative AI could create compelling new utility. The Strategy Canvas will help you visualize the current state of play in the industry and reveal opportunities for value innovation.

Finally, the Four Actions Framework will be introduced, prompting you to consider how generative AI could be used to eliminate, reduce, raise, or create elements in your product or service offering. By the end of this session, you should be able to take a problem statement or idea and transform it into a compelling value proposition within the generative AI space.

Week 1 Homework

Interviewing users for idea validation

In Week 1's homework, your task is to validate the opportunities identified through user interviews. This critical phase involves direct engagement with potential users, allowing you to gather firsthand information about their needs, preferences, and challenges. Your conversations should be aimed at understanding the problem from the user's perspective and gaining insights into how the proposed Generative AI solution would fit into their lives. This exercise will not only validate or challenge your assumptions but also provide a rich source of qualitative data that can inform and refine your solution, ensuring its relevance and usefulness to your target audience.

Week 2 Workshop

Defining AI and generative AI solution architecture

During the Week 2 workshop, we'll focus on defining the architecture for your AI and Generative AI solution. This begins with a comprehensive review of the user feedback gathered from your Week 1 homework. By revisiting your proposed solution in light of this feedback, you can iteratively refine your idea, ensuring it continues to align with the needs of your users.

Once your solution is updated, we'll transition into breaking down the solution architecture. Here, you'll learn to identify the key components and processes required for your AI and Generative AI solution, as well as how they interact. This will involve discerning the data inputs and outputs, the AI model type suitable for your solution, training and testing procedures, and more.

We'll pinpoint the specific AI or Generative AI components for your project. We'll discuss AI and Generative AI techniques selecting the ones most suited to your project's unique demands.

Week 2 Homework

Evaluating AI and generative AI solutions and cloud offerings

Week 2's homework tasks you with a crucial decision-making exercise: evaluating whether to buy, build, or rent your AI or Generative AI solution. This process involves conducting thorough market research to understand the current offerings in the AI and Generative AI space. You'll learn to appraise each solution based on its features, costs, scalability, and compatibility with your project needs.

Part of this exercise will also involve negotiation with potential vendors, wherein you'll articulate your AI and Generative AI requirements, negotiate terms, and assess the vendor's capability to meet your needs. This practical experience will enhance your understanding of vendor management and the importance of clear, effective communication.

Finally, you'll identify Key Performance Indicators (KPIs) for your AI and Generative AI solution. These metrics will help you measure and monitor the success of your solution, ensuring it is effectively addressing the problem statement and delivering the desired value. This exercise will foster a results-oriented approach to AI project management.

Week 3 Workshop

Safety issues with AI and Generative AI

In Week 3, we delve into the complexities and challenges of AI amd Generative AI, focusing specifically on AI safety issues that can originate from people as well as from AI. This workshop aims to equip participants with an understanding of issues and defenses in the context of AI and Generative AI. We'll start by exploring the nature of AI safety issues, including how they are created and their potential impacts on AI models and systems. Participants will learn about the types of safety issues, such as human initiated or AI originating, and how these can compromise AI solutions.

We will then move on to the strategies and techniques for defending against these issues, discussing both proactive and reactive measures. This includes an overview of model robustness, data sanitization, and the use of special techniques. The session will also cover the ethical implications and responsibilities in preventing and responding to safety issues, emphasizing the importance of security in AI development.

Through interactive discussions and case studies, participants will gain a deeper understanding of the vulnerabilities of Generative AI and the best practices for securing AI systems against safety issues.

Week 3 Homework

Risk-aware evaluating AI and generative AI solution

For this week's homework, participants are tasked with conducting a risk-aware evaluation of their AI and Generative AI solution. This involves critically assessing the solution with a focus on identifying potential safety risks and vulnerabilities. Participants are expected to apply the knowledge gained during the workshop to evaluate their solution's resilience against safety issues.

This task also includes developing a risk mitigation plan, outlining strategies and measures to enhance the security and robustness of the Generative AI solution. Participants will need to consider various aspects such as data integrity, model architecture, and potential points of exploitation. The goal is to create a comprehensive evaluation that not only identifies risks but also proposes effective countermeasures, ensuring the solution's reliability and safety in real-world applications.

Week 4 Workshop

Utilizing generative AI for rapid prototyping

In the Week 4 workshop, we dive into the practical application of AI and Generative AI for rapid prototyping. Here, you'll get hands-on experience using cutting-edge generative AI tools and models from OpenAI, Google and Microsoft. These powerful AI models can generate software code and have wide-ranging applications in software solutions, offering the ability to prototype without writing any code. Through these tools, you'll learn how to harness the power of generative AI to bring your ideas to life quickly and efficiently.

In addition, this workshop will also cover the non-functional requirements of generative AI solutions. These could include considerations around system performance, security, privacy, usability, and scalability. Understanding these requirements is crucial for the design of AI systems, as they directly impact the user experience and the solution's success in the real world. By the end of this session, you'll be well-equipped to bring your generative AI concept into a tangible, working prototype.

Week 4 Homework

Rapid prototyping

For your Week 4 homework, you'll dive into the fascinating field of rapid prototyping with generative AI tools from OpenAI, Microsoft or Google. Your task will be to create a tangible prototype of your AI and Generative AI solution without writing any code.

This task will challenge you to leverage these tools to bring your value proposition to life. You'll be working on transforming your solution architecture into a functional prototype, which may take the form of an interactive chatbot, a content generator, or other applications that fit your proposed solution.

While this may seem like a daunting task, you're not alone. Your instructor will provide support, guidance, and resources to help you 'glue' together the different components of your AI and Generative AI solution. This hands-on experience will give you invaluable insights into the development process with data scientists and engineers, equipping you with the skills necessary to create innovative Generative AI solutions in the real world. Remember, the goal is not only to develop a working prototype but also to learn, explore, and push the boundaries of what's possible with AI and Generative AI.

Week 5 Workshop

Risk analysis for AI and generative AI and MLOps deployment

In Week 5's workshop, we'll address an often overlooked but vital aspect of AI projects: Risk Analysis and Management in AI and Generative AI and MLOps deployment. This session starts with a demonstration of the final solutions developed by the class, giving you the chance to share your work and learn from others' approaches.

Next, we transition into understanding the deployment requirements of generative AI products and services. This covers the technical requirements for deploying your AI solution, as well as the MLOps principles that guide the operation of AI models in production environments.

However, the crux of this workshop is risk analysis. We will introduce you to a risk management framework tailored for generative AI projects. You'll learn to identify potential risks associated with your solution, such as data privacy concerns, model bias, or technology failure. We'll discuss strategies to manage and mitigate these risks, ensuring that your solution is not just innovative but also ethically sound and legally compliant.

Finally, you'll explore how to continuously monitor and govern these risks, an essential skill in the ever-evolving AI landscape. This holistic understanding of risk management will prepare you to responsibly and effectively implement generative AI solutions in the real world.

Certificate

Upon successful completion of the "AI & Generative AI for Product and Business Innovation Workshop and Training", you will be awarded a certificate. This document serves as a testament to your newfound skills and knowledge in leveraging AI and Generative AI for innovative solutions. We encourage you to proudly share their certificates on LinkedIn, showcasing your competencies to potential employers, colleagues, and the wider professional community. This certificate signifies a significant achievement and a step forward in your journey as innovative leaders in the field of AI.

Post-training

The end of the training is the beginning of your AI and Generative AI product management journey and AI Product Institute is there for you along the way. You can join the weekly AIPM Club meetings to ask any questions, network or hear about the latest advancements. Also, you can ask the instructor any questions you may encounter in your projects even months after the training.