FMBA AI Workshops

AI Workshop Journey: From User to Developer
- Nov 11, 14, 20
- Jan 16, 23, 30

Dr. Yuan Tian

What to Expect in a Workshop

Not Traditional Lectures

- **Less** talking from me, **more** doing from you.
- Hands-on learning — **less theory, more practice.**
- **Learn by experimenting**, not just listening.

Learning by Doing

- Use real AI tools to create outputs in every session.
- Practice, iterate, and learn from feedback.

Collaborative & Interactive

- You are welcome to work in pairs or small groups.
- Share ideas, test prompts, and build together.

This Workshop is _Not About..._

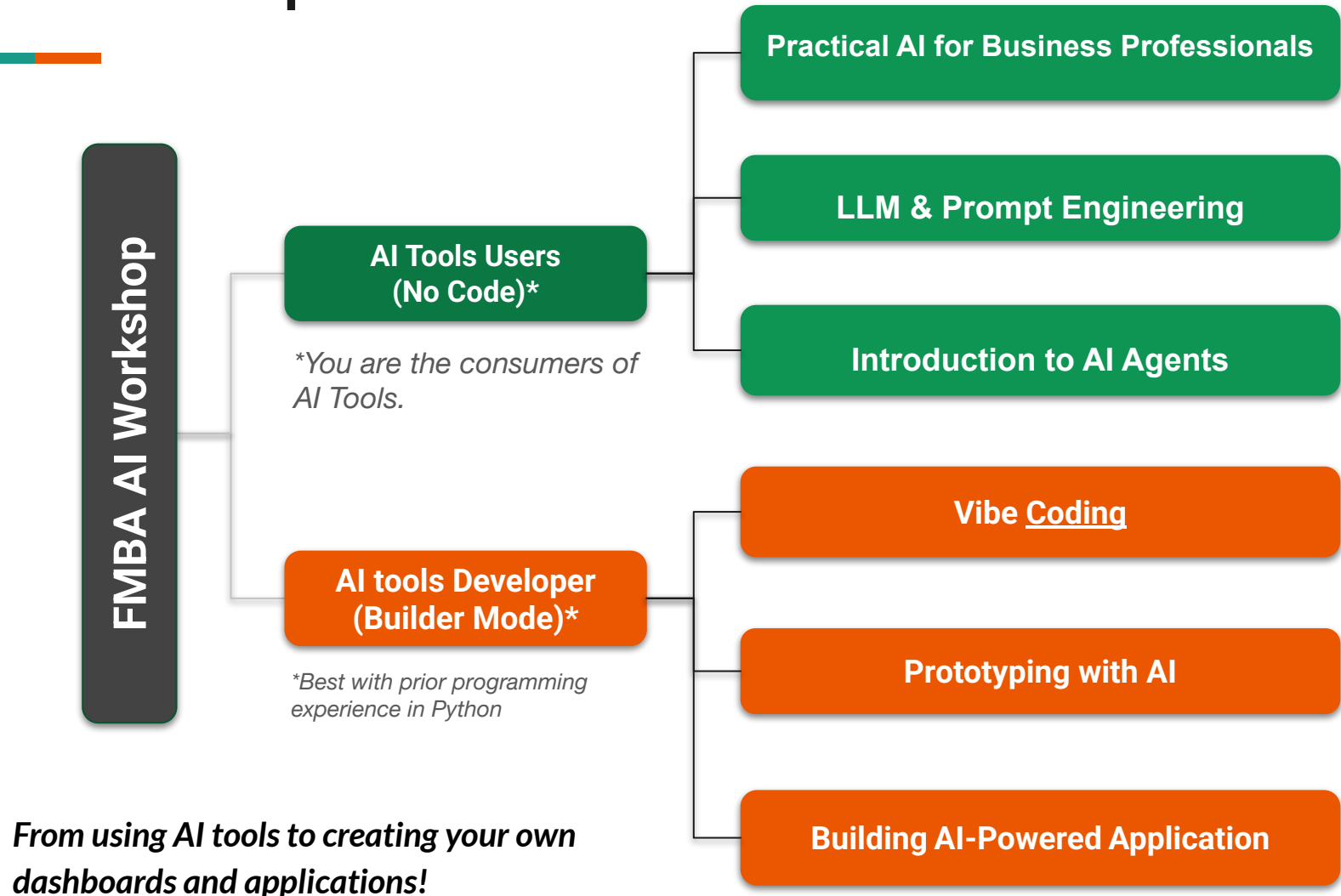**This workshop is NOT about deep technical knowledge; therefore, we will NOT cover the following:**

- Neural networks or how they work internally.

- How to build, train or fine-tune deep learning models.

- Building predictive models using deep learning models

- Retrieval-Augmented Generation or other advanced large language models principles.

- Deep learning models architectures, frameworks, or theory.

Disclaimer

I have no conflict of interest in any the AI tools mentioned in this workshop.

AI Workshop Overview

FMBA AI Workshop

AI Tools Users (No Code)*

You are the consumers of AI Tools.

AI tools Developer (Builder Mode)*

Best with prior programming experience in Python

Practical AI for Business Professionals

LLM & Prompt Engineering

Introduction to AI Agents

Vibe Coding

Prototyping with AI

Building AI-Powered Application

From using AI tools to creating your own dashboards and applications!

FMBA AI Workshop 1

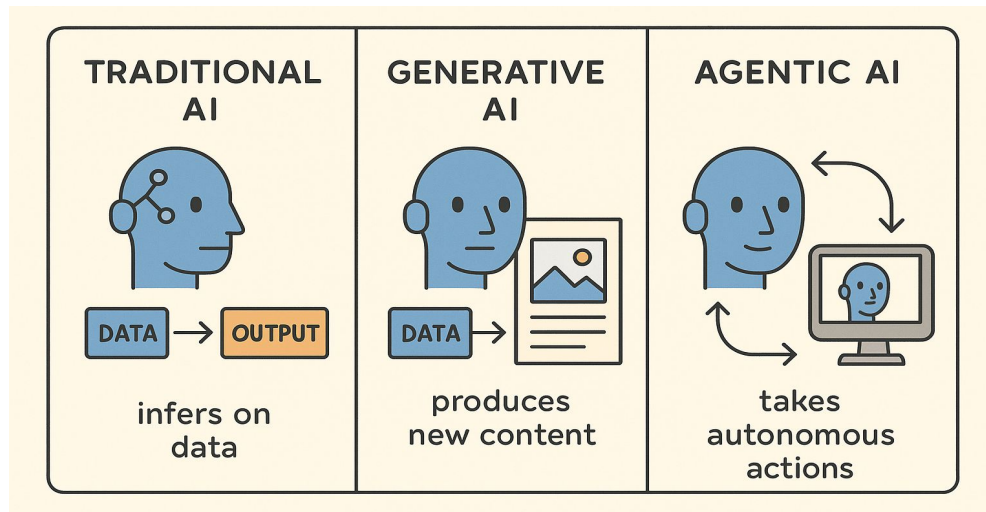## Practical AI for Business Professionals

Dr. Yuan Tian

Overview

- Introduction to Generative AI
- Applications and Tools of Generative AI
- Major Use Cases of Generative AI
- Gen AI's Early Years – AI Adoption 23-24

Generative Artificial Intelligence (Gen AI)

- **Generative AI** is a type of **artificial intelligence algorithms** that **creates new content**, such as text, images, audio, and video, based on **patterns it learned** from massive existing data through **training.**

Applications and Tools of Generative AI

Content Generation

- Text Generation
- Image and Video Generation
- Audio Generation
- Code Generation

AI Product Landscape

Large tech companies are rapidly developing AI tools for text, image/video, audio, and code generation — **covering nearly every content creation use case**.

Common Product Pattern:

- **Chat / Prompt-based tools** for business users (**no coding**).
- **Application Programming Interface (API) versions** for developers and enterprise integration (**coding is required**)

As of today (2025-11-4)

Too Many AI Tools, Too Little Clarity

The growing overlap among AI tools from OpenAI, Microsoft Copilot, and Google Gemini has created significant user confusion.

- Microsoft offers **multiple "Copilot" versions** (Copilot for 365, Copilot Chat, and Copilot integrated within Word, Excel, or Edge)
  - Microsoft 365 Copilot (former "Microsoft Office")
- Google provides **several "Gemini" products** (Gemini for Workspace, Gemini AI Studio)
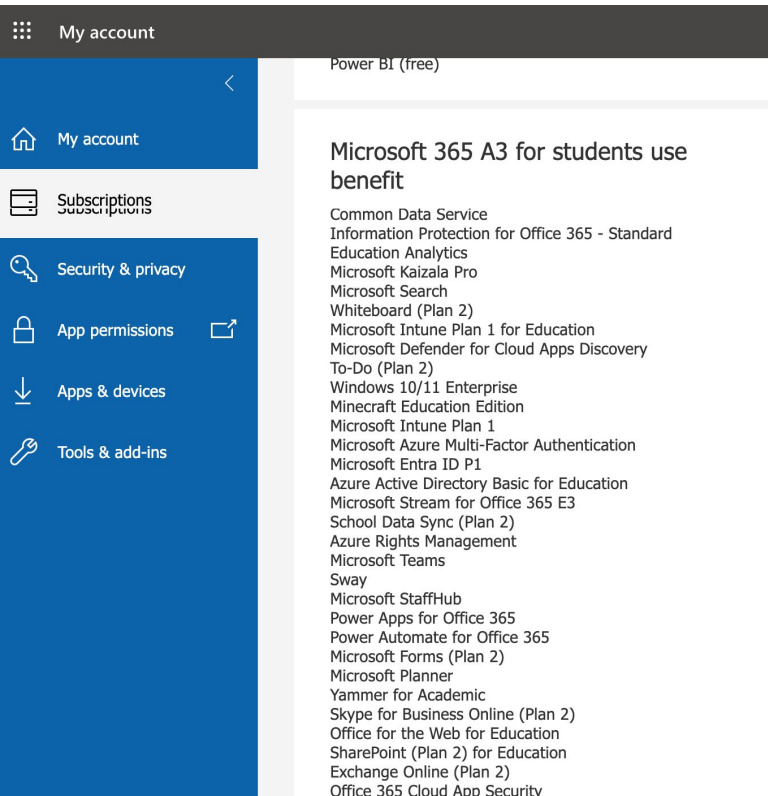- OpenAI's ChatGPT used to have many models for user to choose.

As of today (2025-11-4)

Text Generation Tools

- **ChatGPT (OpenAI)** – versatile conversational and content-drafting engine
- **Claude (Anthropic)** – strong for long-form, structured writing & summarisation
- **Microsoft Copilot (in Microsoft 365)** – integrated into Word/ Powerpoint.
- **Gemini Chat (Google)** - Chat-style text generation

Text Generation: Microsoft Copilot

My account

Power BI (free)

Microsoft 365 A3 for students use benefit

Common Data Service
Information Protection for Office 365 - Standard
Education Analytics
Microsoft Kaizala Pro
Microsoft Search
Whiteboard (Plan 2)
Microsoft Intune Plan 1 for Education
Microsoft Defender for Cloud Apps Discovery
To-Do (Plan 2)
Windows 10/11 Enterprise
Minecraft Education Edition
Microsoft Intune Plan 1
Microsoft Azure Multi-Factor Authentication
Microsoft Entra ID P1
Azure Active Directory Basic for Education
Microsoft Stream for Office 365 E3
School Data Sync (Plan 2)
Azure Rights Management
Microsoft Teams
Sway
Microsoft StaffHub
Power Apps for Office 365
Power Automate for Office 365
Microsoft Forms (Plan 2)
Microsoft Planner
Yammer for Academic
Skype for Business Online (Plan 2)
Office for the Web for Education
SharePoint (Plan 2) for Education
Exchange Online (Plan 2)
Office 365 Cloud App Security

My account
Subscriptions
Security & privacy
App permissions
Apps & devices
Tools & add-ins

https://portal.office.com/Account
https://www.microsoft.com/en-us/microsoft-365-copilot/pricing

- SKKU provides Microsoft 365 A3 for students use benefits.
- **Microsoft 365 Copilot Chat (the basic free one comes with Microsoft 365 subscription) is now built into apps** like Word, Excel, PowerPoint.
- Inside these apps the **Copilot feature is context-aware** — meaning it knows what document (spreadsheet, word, or ppt) you're working on.
- It **can NOT directly modify or make changes** to your working documents.
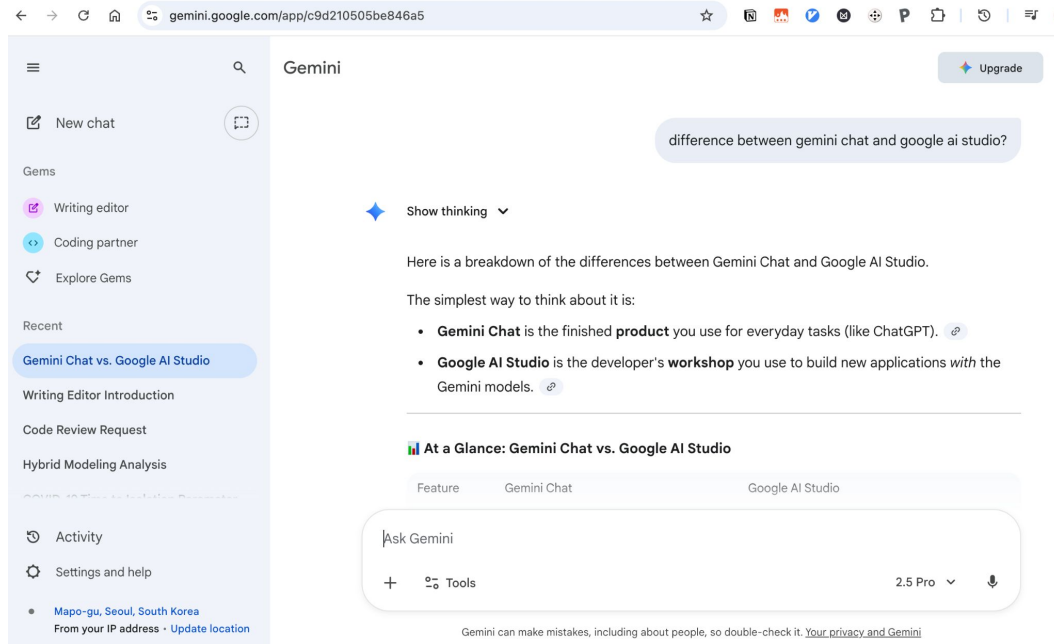
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Lab: Explore Microsoft 365 Copilot Chat

- In Word, Excel, Powerpoint
- In Edge (browser)

Lab (20 minutes)
Summarize the **financial reports** of NVIDIA
and generate word, excel, and powerpoint files.

Text Generation Tools: Google Gemini

- **Gemini Chat (like ChatGPT):**
  https://gemini.google.com/app?hl=en_GB

Google Gemini for Developers and Business

BUILD WITH GEMINI MODELS:

Google AI Studio

Experiment, prototype, and deploy. Google AI Studio is the fast path for developers, students, and researchers who want to try Gemini models and get started building with the Gemini Developer API.

Vertex AI

Build AI agents and integrate generative AI into your applications, Google Cloud offers Vertex AI, a single, fully-managed, unified development platform for using Gemini models and other third party models at scale.

USE GEMINI IN YOUR BUSINESS:

Gemini Enterprise

Bring the best of Google AI to every employee. Gemini Enterprise empowers teams to discover, create, share, and run AI agents all in one secure platform.

Google Workspace with Gemini

Your AI-powered assistant built right into Gmail, Docs, Slides, Sheets, and more, to help boost your productivity and creativity.

Note: **Google AI Studio (for developers)** has **a free tier** for individuals. We will use it for later sessions in this workshop. Please make sure you got one Google account.

Reference: https://cloud.google.com/ai/gemini?hl=en

Lab: Explore Google AI tools

- **Explore Google Gemini Chat**
- **Explore Google AI Studio (has both API and temporal chat feature)**

Note: Google AI Studio has **a free tier** for individuals. We will use it for later sessions in this workshop. Please make sure you got one Google account.

Reference: https://cloud.google.com/ai/gemini?hl=en

Image (and Video) Generation Tools

- **Gemini 2.5 Flash Image (Nano Banana)** in Gemini AI Studio

- **Midjourney** – high-quality creative image generation via prompt

- **Adobe Firefly** – text-to-image, generative fill, integrated into Adobe Creative Cloud

- **Synthesia** – avatar-based video generation from script (business/training use)

Image Generation

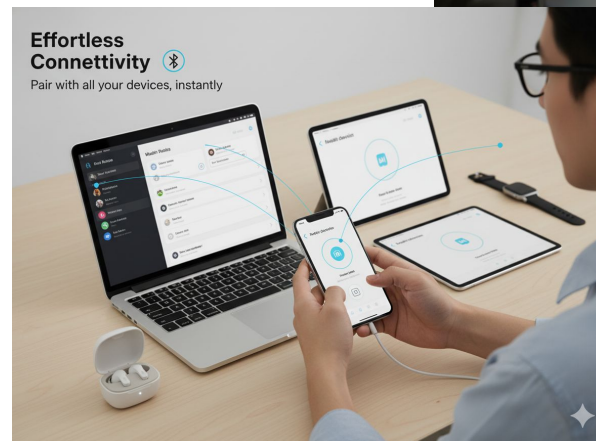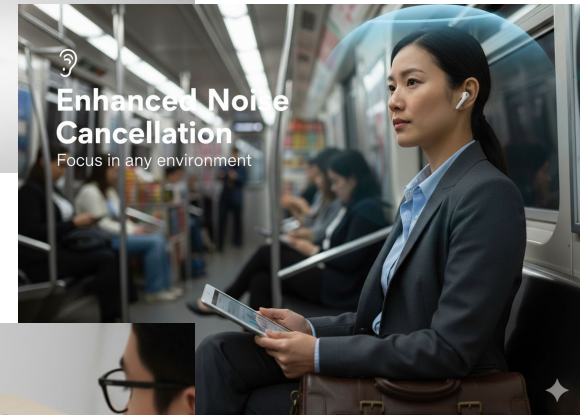- Gemini 2.5 Flash Image (Nano Banana) in Gemini App (or Google AI Studio)
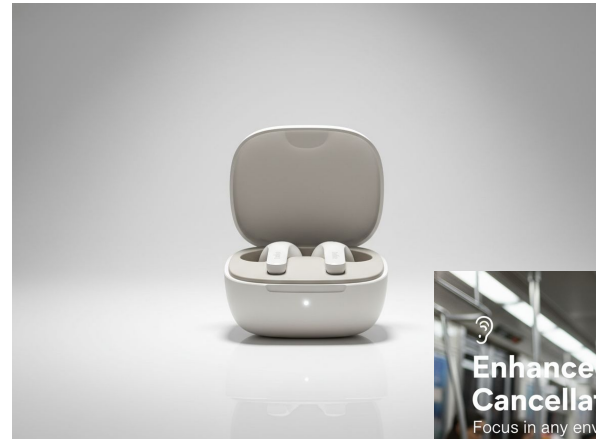
Lab: Image Generation

- You are given a white, no-label night cream bottle, design a brand identity and packaging visual for a minimalist night cream bottle.
- github.com/tianyuan09/tianyuan09

Lab: Image Generation

Enhanced Noise Cancellation
Focus in any environment

Effortless Connettivity
Pair with all your devices, instantly

Audio Generation

- **ElevenLabs** – text-to-speech, voice cloning, multilingual voice-overs
- **OpenAI Audio API** - process audio by using sound as input, creating sound as output, or both.
- **Notebook LM by Google** - text to audio (podcast-style)

Lab: Audio Generation – NotebookLM Demo

- Audio by Notebook LM
- https://finance.yahoo.com/news/mit-report-95-generative-ai-105412686.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAJbiK4E-W1pJAkm1daSR6VIf9imQPFJJRqqA8p1IrwnU_Y45AQPE_u5fFFZfmKpA5azZPGcWGN2YhI8mW3JNaXLxfHTuH31W2nYXImxIZKOE3tBxi2VGw1kOQ79-LF_rj3-ObFEPV2a-4Wr6TOqjwLhunqXhQ_t8GUd0fd3L6GAa

Code Generation

- **GitHub Copilot** – in-editor AI code completion and generation (works via your GitHub/Microsoft accounts)

- **Google Gemini Code Assist** – code-assist model from Google, available to individuals (and via Google Workspace)

- **OpenAI Codex (via API)** – more developer-centric code generation and automation capabilities

Price note: **GitHub Pro** in provided to **students for free** with access to many premium AI models for coding; Google Gemini has **a free tier** for individuals.

Lab: Code Generation

Setup Github Copilot

https://github.com/tianyuan09