



**INFORMATION AND
TECHNOLOGY SERVICES**

UNIVERSITY OF MICHIGAN

What is AI and How Using AI Can Support IT Finance Departments

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ITFMA Conference

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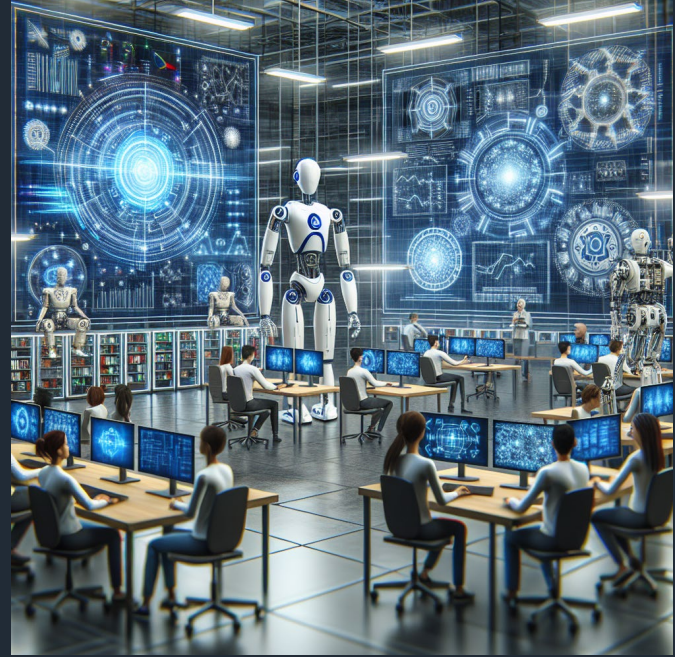
Topics for Today



- What is AI and how does it work
- How can we use it today
- What is trending for the future

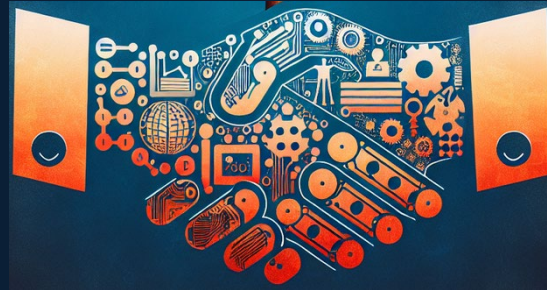
What is AI

Artificial Intelligence (AI) is the ability of computers and machines to perform tasks that usually require human intelligence.



How Does it Work

- AI systems learn from data that enables them to handle complex problems and simple repetitive tasks, improving how they respond over time.
- Generative AI learns to identify patterns and create new variations based on those patterns.



Ethics

Ethical considerations: privacy, bias, job displacement, misuse of tech

GENAI RETAINS ALL OF THE BIASES OF THE INFORMATION IT INTAKES.

IF THE TRAINING DATA FOR THE AI INCLUDES BIAS, THE RESULTS WILL ALSO BE BIASED.

CAN PERPETUATE MISINFORMATION THAT IS INACCURATE, MISLEADING, OR HARMFUL.

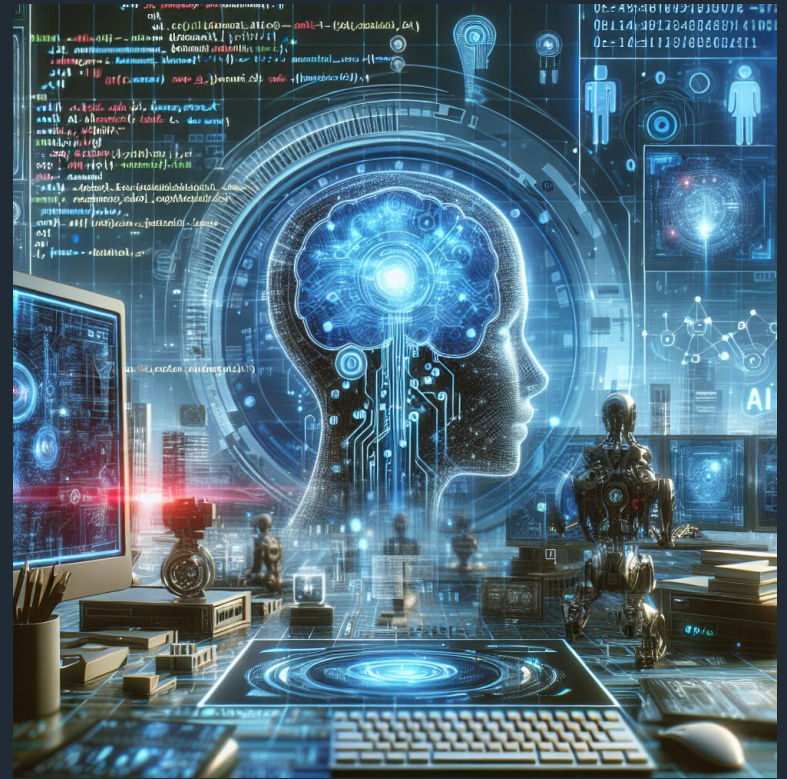
AI OUTPUTS CAN BE INACCURATE AND MUST BE FACT-CHECKED.

IT IS NOT YET CLEAR WHO OWNS OR IS ACCOUNTABLE FOR OUTPUTS OR PROMPTS.

ACCESS TO TECHNOLOGY NEEDED AND AI LITERACY REQUIRE INVESTMENT SOME CANNOT AFFORD.

How Can We Use it Today

AI is used in a variety of ways across different fields and industries.



AI is All Around Us



Students, Faculty, and Staff Use AI Every Day

[I Use AI: How the University of Michigan is Using Artificial Intelligence](#)

[U-M Generative AI Use Cases](#)

Simple Ways to Leverage AI

IT finance teams can use AI in several simple ways. For example:

- Idea generation
- Composing/reviewing emails
- Technology terms and definitions
- Procurement questions
- Summarize new/updated policies

How Do I Build the Best Prompts

Effective prompts can significantly enhance the quality of the responses.

- Be clear and specific: Avoid Ambiguity & Request Detail
- Frame your context: Provide Background
- Ask follow-up questions: Build a Conversation
- Limit potential biases: Neutral Language
- Repeat and refine: Analyze and Adapt

Idea Generation

- Context: Plan an ice breaker for team retreat.
- ChatGPT Prompt: what can i do for a 5-person team ice breaker
- Result: ...

Composing/ Reviewing Emails

- Context: Email Directors about a 1% budget cut.
- ChatGPT Prompt: draft an email to directors about a 1% budget cut for next year and ask them to respond with a plan
- Result: ...

Technology Terms and Definitions

- Context: Upcoming meeting to discuss hosting software on-prem versus the cloud.
- ChatGPT Prompt: what is on-prem versus the cloud mean
- Result: ...

Procurement Questions

- Context: Looking to add a deep storage service.
- ChatGPT Prompt: who provides deep storage services
- Result: ...

Summarize New/Updated Policies

- Context: New policy comes out that needs to be communicated to staff.
- U-M GPT Prompt: summarize this policy “[*enter policy text here*]” and create an email to staff
- Result: ...

summarize this policy

“The policy supports an adaptable work environment focused on balancing employee needs with the university's mission, while managing risk. Key guidelines are:

Remote Work Agreement: A formal remote work agreement must be on file.

Employee Responsibilities: Follow approval processes and provide necessary details for remote work requests.

Unit Responsibilities: Ensure compliance with all policies and laws and facilitate necessary agreements.

Central Administration Responsibilities: Provide necessary approvals and guidance.”

and create an email to staff



AI Helping Data-Driven Business Decisions

In finance, AI can analyze vast amounts of financial data, detect patterns, and make data-driven decisions.



Predictive Analytics

- Optimization of inventory for retail services or warehouse stocks.
- Equipment maintenance schedules.
- Quickly analyze large datasets to provide an in-depth forecast report (i.e., Excel files, pdfs).

review my forecast for
june 30 based on
actuals through
december 31

	Actual July	Actual August	Actual September	Actual October	Actual November	Actual December	Forecast January	Forecast February	Forecast March	Forecast April	Forecast May	Forecast June	Projected Total FY 2025	Final Budget FY 2025	Variance
Beginning Fund Balance													5,360,437	5,360,437	0
Revenue															
Appropriations	48,232,254	0	0	0	0	0	0	0	0	0	0	0	48,232,254	49,232,251	(999,997)
Investment Transactions	69,681	(7,795)	(8,703)	65,949	(11,045)	(13,926)	61,469	12,407	22,407	61,469	22,407	12,407	286,729	287,510	(781)
Gifts and Grants	0	49,663	0	0	0	0	0	0	0	0	0	0	49,663	48,883	780
External and Other	1,092,367	1,449,028	1,227,249	427,315	1,076,287	808,265	856,940	1,374,417	1,451,324	1,461,203	1,505,579	1,016,153	13,746,127	13,743,490	2,637
Recharge Revenue	5,026,589	5,164,173	5,711,389	4,709,117	5,395,303	4,945,210	5,187,734	4,933,595	5,353,740	12,209,339	5,710,610	5,169,126	69,515,925	69,513,370	2,555
Total Revenue	54,420,891	6,655,069	6,929,936	5,202,381	6,460,545	5,739,548	6,106,143	6,320,420	6,827,471	13,732,010	7,238,596	6,197,686	131,830,698	132,825,504	(994,806)
Compensation & Benefits															
Base Salaries	4,958,738	4,952,328	4,722,844	4,802,910	4,879,462	4,750,829	4,709,689	4,569,580	4,550,641	4,530,851	4,532,316	4,532,316	56,492,504	57,274,869	782,365
Non-Base Compensation	(549,770)	45,697	57,327	52,412	32,494	22,152	29,168	29,168	33,128	29,168	29,168	754,235	564,348	565,672	1,324
Temp Salaries	128,702	132,467	142,377	89,799	92,472	82,411	100,877	100,416	117,074	101,107	109,707	115,614	1,313,019	1,312,695	(324)
Total Benefits	1,367,333	1,359,542	1,369,154	1,280,709	1,312,658	1,326,579	1,388,488	1,401,763	1,497,538	1,420,228	1,420,482	1,420,481	16,564,955	16,801,546	236,591
Subtotal Compensation & Benefits	5,905,003	6,490,034	6,291,702	6,225,831	6,317,085	6,181,971	6,228,222	6,100,927	6,198,381	6,081,353	6,091,672	6,822,646	74,934,826	75,954,782	1,019,956
Cost of Goods Sold	1,736,835	2,026,313	1,767,166	1,176,168	1,723,649	1,593,765	1,493,000	960,870	1,019,452	1,049,583	1,741,199	1,611,476	17,899,474	17,905,995	6,521
Furniture & Equipment	6,005	21,509	21,589	56,116	46,925	9,894	17,557	19,307	120,557	20,057	24,557	74,557	438,631	435,679	(2,952)
Software & Hardware Maintenance	523,188	328,166	1,314,609	349,350	911,673	1,857,873	867,881	835,335	2,342,010	434,953	1,303,719	5,098,890	16,167,650	17,150,389	982,739
Computing Services & Supplies	514,145	598,627	573,295	144,444	163,679	373,260	626,170	175,179	286,768	520,058	357,108	1,213,785	5,546,516	5,555,908	9,393
Computers, Copiers, Fax, Printers	22,515	13,469	46,469	268,425	22,423	21,093	59,020	366,576	381,520	61,520	61,520	233,021	1,557,569	1,552,615	(4,954)
Consulting and Contractors	543,816	410,094	423,466	370,166	276,272	376,195	287,512	322,314	419,011	423,689	517,325	721,840	5,091,700	5,094,968	3,268
Overhead Recharge	33,557	26,419	20,695	23,557	23,557	24,851	50,174	54,144	54,144	54,144	54,144	54,146	473,534	481,491	7,956
Office Supplies, Printing, and Postage	93,977	141,199	110,504	143,058	103,061	184,400	145,650	107,085	105,310	98,097	91,577	83,577	1,407,497	1,407,910	413
Memberships, Dues and Subs	158,344	296,767	22,304	3,275	4,535	291,828	2,229	1,608	1,608	1,758	1,608	57,745	843,611	844,053	442
Training, Travel, and Hosting	50,800	45,831	52,735	100,681	68,506	110,414	100,576	102,830	100,330	102,330	109,330	277,553	1,221,916	1,223,179	1,263
Space and Transportation	196,322	197,181	194,834	200,081	199,620	261,422	193,086	193,086	193,086	193,086	185,157	187,657	2,394,616	2,395,830	1,214
Utilities	212,023	441,550	182,143	83,950	229,114	179,877	136,592	136,592	143,592	231,592	231,592	351,592	2,562,206	2,562,298	914
Communication and Network Fees	183,015	236,588	216,181	225,070	267,474	570,127	(37,070)	394,476	530,931	259,476	260,476	916,249	4,022,994	4,027,112	4,118
Plant & Building Expenses	33,850	58,290	181,710	99,499	157,309	104,757	106,825	106,825	107,825	106,825	106,825	213,524	1,384,065	1,391,007	6,942
Internal Rebill	(109,895)	(60,272)	(170,097)	(135,796)	(71,208)	(102,847)	(9,000)	(245,137)	(66,203)	(257,979)	(3,641,775)	(3,225,800)	(8,095,890)	(8,103,412)	(7,522)
Interest Payments	262,083	(69,063)	(25,542)	(316,156)	(88,827)	(304,846)	(25,542)	(25,542)	(25,542)	(25,542)	(25,542)	(25,542)	(983,712)	(987,994)	(4,282)
ITS Use Charge	138,681	138,681	138,681	138,681	138,681	138,681	138,681	138,681	138,681	138,681	138,681	138,681	1,684,170	1,658,304	(25,866)
Other General Expenses	161,133	161,253	131,052	112,547	34,190	72,759	132,841	80,612	58,340	60,365	60,402	203,469	1,288,961	1,271,854	2,893
Subtotal - Other Expenses	4,760,394	5,012,602	5,201,793	3,043,117	4,210,634	5,763,703	4,286,182	3,726,840	5,911,419	3,472,692	1,577,902	7,898,229	54,865,508	55,867,186	1,001,678
Total Expenses	10,665,396	11,502,636	11,493,495	9,268,948	10,527,719	11,945,673	10,514,404	9,827,767	12,109,800	9,554,045	7,669,574	14,720,875	129,800,334	131,821,968	2,021,634
Net Annual Change	43,755,495	(4,847,567)	(4,563,559)	(4,066,567)	(4,067,174)	(6,206,125)	(4,408,261)	(3,507,348)	(5,282,329)	4,177,965	(430,978)	(8,523,188)	2,030,364	1,003,536	1,026,828
Ending Fund Balance													7,390,801	6,363,973	1,026,828

Automating Routine Tasks

- AR: Anticipate payments and predict customer behavior based on payment history.
- AP: Invoice coding and PO matching predicted based on historical data.

Problem

The Shared Services Center processes approximately 300,000 invoices annually. Previously, this process relied on a template-based system. With the sunseting of this older technology, a new AI driven solution was needed.

Outcome/Impact

The transition to a U-M GPT powered invoice processing system has significantly improved workflow efficiency and accuracy:

- Higher Automation Rate
- Faster Processing Times
- Streamlined Payments



Risk Management

- Reduces human error and enforces compliance with standards.
- Detect irregularities in financial transactions.

ChatGPT Prompt: review my billing file for errors or missing information

Card Type	Short Code	Account	Supplier ID	Invoice Date	Uniqname	Departmental Reference Number	Item Description	Supplier Item ID	Quantity Vouchered	Unit Price	Merchandise Amount	Voucher Comment
1	129862	624014	0000831916	2025-03-01	nelson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	anderson	SES FSPP	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	130226	624014	0000831916	2025-03-01	anderson	SES FSPP	SES Virtual Machine	Mar-25	140.00	1	140.00	Charge: Virtual Server
1	940756	624014	0000831916	2025-03-01	anderson	SES FSPP	SES Virtual Machine	Mar-25	140.00	1	140.00	Charge: Virtual Server
1	942800	624014	0000831916	2025-03-01	smith	SES ARC	SES Virtual Machine	Mar-25	84.00	1	84.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	carl	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	carl	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	roberts	SES FSPP	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	130226	624014	0000831916	2025-03-01	roberts	SES FSPP	SES Virtual Machine	Mar-25	140.00	1	140.00	Charge: Virtual Server
1	940756	624014	0000831916	2025-03-01	roberts	SES FSPP	SES Virtual Machine	Mar-25	140.00	1	140.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	jackson	SES ARC	SES Virtual Machine	Mar-25	28.00	1	28.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jones	SES SERVICES	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jackson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	roberts	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	clark	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	anderson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	anderson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	940609	624014	0000831916	2025-03-01	jones	SES ARC	SES Virtual Machine	Mar-25	7.00	1	7.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	carl	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	clark	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	roberts	SES MAIZE	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	carl	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jones	SES SERVICES	SES Virtual Machine	Mar-25	56.00	1	56.00	Charge: Virtual Server
1	019634	624014	0000831916	2025-03-01		SES MED	SES Virtual Machine	Mar-25	448.00	1	448.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	smith	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	smith	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	roberts	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	clark	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	clark	SES SERVICES	SES Virtual Machine	Mar-25	28.00	1	28.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	homes	SES MED	SES Virtual Machine	Mar-25	1120000.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	homes	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	homes	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	942800	624014	0000831916	2025-03-01	homes	SES ARC	SES Virtual Machine	Mar-25	672.00	1	672.00	Charge: Virtual Server
1	129862	624014	0000831909	2025-03-01	anderson	SES DRD	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server For CUI
1	129862	624014	0000831916	2025-03-01	homes	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	roberts	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jackson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	227847	624014	0000831916	2025-03-01	carl	SES MED	SES Virtual Machine	Mar-25	672.00	1	672.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	clark	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	anderson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	229765	624014	0000831916	2025-03-01	anderson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jackson	SES MAIZE	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jones	SES MAIZE	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	127502	624014	0000831916	2025-03-01	smith	SES MIRK	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jones	SES MAIZE	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	carl	SES MAIZE	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	jackson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831916	2025-03-01	carl	SES MAIZE	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server
1	129862	624014	0000831909	2025-03-01	anderson	SES MIRK	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server For CUI
1	129862	624014	0000831916	2025-03-01	anderson	SES MED	SES Virtual Machine	Mar-25	112.00	1	112.00	Charge: Virtual Server

Fun Ideas Outside of Work

Find a recipe –
what can i make for
dinner with chicken
asparagus goat cheese



You can make a delicious Chicken and Asparagus Goat Cheese Skillet. Here's a simple recipe idea:

Ingredients:

- 1 lb. Chicken breasts
- 1 bunch of asparagus, trimmed and cut into 2-inch pieces
- 4 oz goat cheese, crumbled
- 2 cloves garlic, minced
- 1 tbsp olive oil
- Salt and pepper to taste
- Optional: lemon zest or juice, fresh herbs like thyme or parsley

Instructions:

- 1. Prepare the Chicken:**
 - Season the chicken breasts on both sides with salt and pepper.
 - Heat olive oil in a large skillet over medium-high heat.
 - Add the chicken to the skillet and cook for about 5-7 minutes on each side, or until golden brown and fully cooked through. Remove from the skillet and set aside.
- 2. Cook the Asparagus:**
 - In the same skillet, add a bit more olive oil if needed, then add the minced garlic. Sauté for about 30 seconds until fragrant.
 - Add the asparagus pieces to the skillet and sauté for about 3-5 minutes until they're bright green and tender crisp.
- 3. Combine with Goat Cheese:**
 - Lower the heat to medium or medium-low.
 - Return the chicken to the skillet with the asparagus.
 - Sprinkle crumbled goat cheese over the chicken and asparagus, allowing it to melt slightly.
 - If using, add lemon zest, a squeeze of lemon juice, or fresh herbs for added flavor.
- 4. Serve:**
 - Let everything heat through for a couple more minutes, making sure the cheese is warmed.
 - Serve immediately, either on its own or over a bed of rice, quinoa, or with crusty bread on the side.

Fun Ideas Outside of Work

Create a playlist –
create a play list similar
to elton john music



Creating a playlist similar to Elton John's music involves capturing the essence of his style—classic rock with a touch of glam, piano-driven melodies, and poignant lyrics.

Here's a playlist suggestion:

1. **"Goodbye Yellow Brick Road" by Elton John**
2. **"Your Song" by Elton John**
3. **"Tiny Dancer" by Elton John**
4. **"Bennie and the Jets" by Elton John**
5. **"Rocket Man" by Elton John**
6. **"The Piano Man" by Billy Joel**
7. **"Bohemian Rhapsody" by Queen**
8. **"Let's Dance" by David Bowie**
9. **"Summer Highland Falls" by Billy Joel**
10. **"Maggie May" by Rod Stewart**
11. **"Hotel California" by Eagles**
12. **"Somebody to Love" by Queen**
13. **"Go Your Own Way" by Fleetwood Mac**
14. **"More Than a Feeling" by Boston**
15. **"Ride Like the Wind" by Christopher Cross**
16. **"Superstition" by Stevie Wonder**
17. **"Black Velvet" by Alannah Myles**

Fun Ideas Outside of Work

Build a picture –
show me a picture of an
accountant working on a
beach





INFORMATION AND
TECHNOLOGY SERVICES
UNIVERSITY OF MICHIGAN

Questions?

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