2024 PREDICTIONS
FOR ADVANCED AI ENGINEERS

AI & LLMs - Programming - Big Tech - Stocks & Crypto - Job Market - Pareto Actions
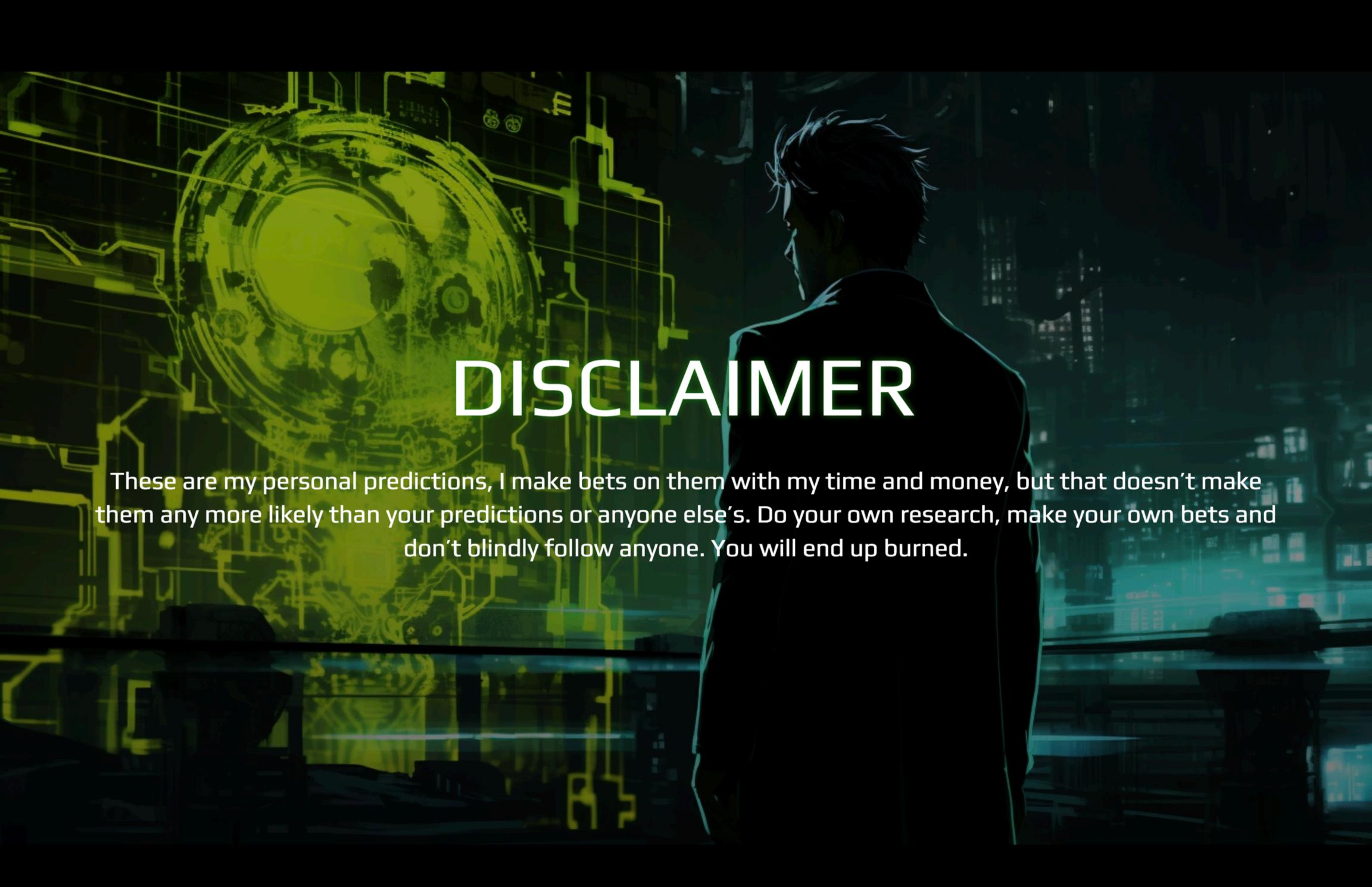
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WHY MAKE PREDICTIONS?

Great Predictions -> Greater Accountability -> More Skin in the game -> Great Outcomes.

If you correctly predict the future you can take advantage of being in the right place before everyone else.

If you're wrong, and you can learn from your mistakes, and quickly pivot into situations that you likely considered, making the pivot faster and easier.

Consider this: If you predict local LLMs will on-par with GPT-3.5 turbo in 2024 (hint hint prediction incoming). With this prediction in mind - you can start learning how to use them now, get them into your tech stack and position yourself to be an expert for your engineering work.

DISCLAIMER

These are my personal predictions, I make bets on them with my time and money, but that doesn't make them any more likely than your predictions or anyone else's. Do your own research, make your own bets and don't blindly follow anyone. You will end up burned.

🤖 AI & LLM PREDICTIONS

[strong] OpenAI continues to lead the AI race. No one comes close to what they have brewing. Everyone simply copies their strategies, and attempt to replicate their models by using their models.

[extreme] Open Source LLMs achieve consistent performance at GPT 3.5-Turbo levels. Making them highly effective on devices with moderate prompt engineering. We see two factions of models develop: one focused on performance, and one focused on efficiency.

[mid] The first major 'AI sentience' scare occurs, leading to a temporary reproducible phenomenon. This event, likely involving a next-generation LLM from OpenAI, sparks serious consideration of AI safety among engineers and elevates the status of companies prioritizing AI safety.

🤖 AI & LLM PREDICTIONS (2)

[strong] OpenAI releases two groundbreaking models. The first is a next-generation GPT model (GPT-5) and the second is a new generation of models with a new architecture that proceeds the transformer architecture.

[extreme] Mastering the art of effective prompting becomes a crucial skill for knowledge workers. Like learning how to read, use technology, and learning how to code - prompt engineering becomes a the next fundamental skill for knowledge workers in 2024.

🤖 AI & LLM PREDICTIONS (3)

[strong] The 'chat with AI' interface becomes ubiquitous, transforming user expectations and becoming the standard for AI interactions.

[strong] Contrasting the previous prediction, come mid-2024 we see the emergence of new, domain-specific user interfaces, signaling a shift beyond standard chat interfaces and sparking a variety of creative UIs for LLMs.

💻 PROGRAMMING

[strong] Low code / No code solutions that SMOOTHLY integrate LLMs and have a opt-in full coding experience become the standard for rapid prototyping.

[extreme] The next generation of programmers will largely divide into two groups. The first group will focus on learning fundamental programming skills and use GPT to enhance their learning. The second group will rely on GPT as a shortcut, neglecting foundational skills. Over time, the first group will succeed and the second will struggle, becoming overly reliant on their prompting abilities. Effective engineering managers will distinguish between these two types of programmers and hire accordingly.

💻 PROGRAMMING (2)

[strong] Typescript & Python remain the unchallenged, best all-around, multi-purpose programming languages. Mastery of these two languages ensures employability in the tech industry.

[mid] Apple Vision Pro paves the way for the next generation computing platform. It's a foundational step, much like the early iPhones, it has flaws but it contains a solid vision for future computing.

[mid] The Apple Vision Pro leads to a surge in the popularity of the Swift programming language.

💻 PROGRAMMING (3)

[strong] Microsoft Copilot, Aider, Mentat, Cursor and other AI assistants become a must have for all programmers. They are integrated into all major IDEs and become a standard part of the programming experience.

[extreme] Top performing engineers consciously move up the stack, focusing more time on business and product strategy, and less on implementation details. They utilize great tools powered by AI assistants to automate the majority of their implementation work. Senior+ level engineers that successfully make this transition become the most valuable engineers in the industry.

[extreme] Top performing engineers adapt to new AI charged tech by maintaining and curating information channels that keep them up to date on latest tech and methodologies.

🏢 BIG TECH

[extreme] Tiktok & Social Media addiction takes center stage and a new (regurgitated) trend of dopamine fasting returns. The trend blows up and dies, Tiktok persists.

[strong] TikTok does not get banned. Continuing its operations without major legal interruptions.

[extreme] Google, Apple, Amazon, Facebook, and Microsoft maintain their positions as the top tech giants, joined only by OpenAI as a significant competitor.

🏢 BIG TECH (2)

[strong] Big tech learns to utilize LLMs like no one else and begin churning out hyper specialized ads that 'force' you to click. We see an unusual increase in ad conversion due to this but don't see backlash until 2025 when someone publicly calls out a hyper specialized ad designed creepily just for them based on their recent web activity.

[strong] OpenAI continues to get sued for their AI models. They win some, lose some, and move on. They already have all the money and data they need to continue building their next generation models.

🏢 BIG TECH (3)

[extreme] OpenAI continues to lead the AI race. Anyone that comes close only does so because of they analyze and highjack OpenAI models to generate, test, and train their models. Companies copy their strategies, and attempt to replicate OpenAI models.

[strong] Gemini Ultra surpasses gpt-4-turbo in Q1 2024 for a moment until OpenAI releases their next generation model, google runs back to the drawing board and looks for other ways to compete (pricing or speed).

¥ STOCK & CRYPTO

[mid] AI and the Magnificent 7 (Apple, Microsoft, Alphabet, Amazon, Nvidia, Meta, and Tesla) play a key role in cancelling a national recession, continuing the disconnect between stock market trends and the financial realities of most Americans.

[mid] The S&P 500 Index (SPX) reaches 5000 in Q1 or Q2 amidst high volatility, influenced by geopolitical and election uncertainties. After a dramatic dip, we end the year with SPX above 5000.

[strong] The concentration of gains in big tech persists, with the top 15 companies garnering most of the market's profits, similar to the trend observed in 2023.

💹 STOCK & CRYPTO (2)

[strong] The national debt surpasses $50 trillion, yet remains a lesser-discussed issue for another year. This sets up a growing debt bubble that will 'pop' (no one really knows what will happen) between 2025-2027.

[strong] Economic uncertainties fuel rallies in Bitcoin (BTC) and Ethereum (ETH), leading to their decoupling from the stock market. The rally is further boosted by the approval of BlackRock's Bitcoin ETF in Q1, with BTC ending the year above $50,000.

[strong] Solana surpasses Binance Coin (BNB) to take the fourth spot in the cryptocurrency market.

[strong] Ethereum (ETH) challenges Bitcoin's market dominance, ending the year with over 20% of the total crypto market capitalization.

👔 JOB MARKET

[extreme] Remote work is here to stay. Companies outside of big tech that enforce office returns experience a loss of employees. We'll see a minor trend of returning to the office that will be mostly flat be the end of 2024.

[strong] The engineering job market faces an over saturation at the entry and mid-levels. Senior, principal, and staff engineers find ample opportunities in all engineering roles.

[extreme] 'Prompt engineering' completes it's transition from a meme to reality, with specialized job roles emerging. Demonstrating prompt engineering skills becomes crucial skill, leading to the inclusion of prompt-based tasks in job interviews.

👔 JOB MARKET (2)

[strong] Software outsourcing intensifies, causing a significant drop in wages for non-senior engineering roles, as companies opt for more cost-effective hiring in countries like Brazil and India.

[strong] Roles with AI, ML, or Big Data in the job title continue to be highly sought after, offering some of the highest average salaries in software, rivalling emerging 'prompt engineer' positions.

[strong] Demand for front-end engineers decreases significantly, as these roles are among the first to be outsourced, augmented and eventually automated by LLM technologies.

PARETO ACTIONS
80/20 Actions you can take to get ahead in 2024?

- Treat prompt engineering as a first class skill. Embrace prompt techniques, tips, testing frameworks, and practice prompting as often as you code.

- Select your information sources carefully to stay updated with the latest in software tech, tools, and models, enabling informed decision-making in the age of AI.

- Experiment with local LLMs using tools like Ollama, and llamafile to understand the trade offs between local VS api models and free VS paid.

- Focus on mastering Python and TypeScript, as they continue to be crucial in the programming world, offering broad career opportunities.

- Focus on AI tool experimentation. Even the best engineers are bounded by their tools. Keep looking for new, better tools to constantly expand your output.

- Prioritize remote collab skills to to be effective in global teams.

WHAT ARE YOUR 2024 PREDICTIONS?

What do you think about these predictions?

Drop the like, sub and post your predictions in the comments!

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