

THE PROMPT

2 AI SPOTLIGHTS

AI IN ARCHITECTURE & MEDICINE

2 INCREDIBLE AI TOOLS

FREE TOOLS FOR RESEARCH & APP DEVELOPMENT

CAFE AI

YOU ASKED, WE ANSWERED!
THE AI CORE TEAM ANSWERS
STUDENT QUESTIONS

AI & INDUSTRY

THE POTENTIAL FOR AI TO SAVE LIVES

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THE UNIVERSITY OF ARIZONA

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& Data-Enabled Insight

A MESSAGE FROM THE EDITOR



Having the opportunity to dive into the newest AI technologies every day, exploring the revolutionary developments in the space that seemingly happen every day has been exhilarating in itself. However, being a part of AI Core, being connected with readers and audience members from our workshops gives purpose to the technology.

This month's issue is all about deregulation and the surge in AI innovation dominating the headlines. New AI products are taking center stage, adoption of the technology is spreading beyond tech and business, and the new presidential administration has made its stance on AI clear.

What Artificial Intelligence is going to evolve into isn't about the underlying math required for it to work, but about the people that it empowers—the people that it connects, the conversations it sparks, and the people we share it with. I am incredibly excited to introduce this month's edition of The Prompt and for AI Core's future in connecting humanity through AI.

Enjoy!

A handwritten signature in black ink, appearing to read 'Jackson Grove'. The signature is fluid and cursive, written over a white background.

Jackson Grove
Editor & AI Engineer

Pieces of The Prompt are created with the help of AI tools. While we strive for accuracy and clarity, AI-generated content may occasionally contain errors or omissions. Please verify critical information and let us know if you spot anything that needs correction at artificialintelligence@arizona.edu. We value your feedback in ensuring the highest quality communication.

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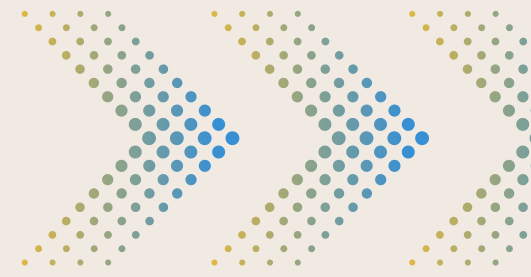
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MAJOR MOVES



Applied Humanities Senior – Tyler Green –
Explores How AI is Changing Architecture



By Tyler Green

Sources: [iTransition.com](https://www.itransition.com)

Architecture students, you're likely all too familiar with hours of studio work spent constantly refining your designs until they're perfect—considering every tiny detail and ensuring it all fits together... and that's not to mention the practical considerations that need to be taken into account. In short, there's a *LOT* of complexity that goes into architectural design, but you don't need me to tell you that.

Well, good news for you! AI is here to make things run *WAY* smoother. Deloitte reports that thanks to advanced AI-powered analytics, the total potential cost savings in construction are estimated to be as high as 10-15%. But it's not just profit margins that are benefiting. New AI-powered Augmented Reality tools are streamlining early-stage architectural planning, generating potential renders to visualize structures far earlier in the design process.

That said, you might be wondering, "Should I be worried?". AI has made huge strides, but at its current state in architectural applications, it still relies heavily on human oversight and creative direction. Rather than replacing architects, it serves as a tool for greater productivity, empowering them to focus on design decisions that truly need a human touch.

Want to learn more? Check out the links below!

AI Analytics-powered optimization



AI-Powered Parametric Design



Learn more about
AI in Architecture
with these articles!

[itransition.com](https://www.itransition.com) – 10 use cases & top technologies

[Autodesk](https://www.autodesk.com/insights/articles/ai-in-architecture) – How AI in Architecture is Shaping the Future of Design

PAGING DR. AI

Applied Computing Senior – Ralf Sepulveda –
Explores Recent Cases of AI in Healthcare

By Raphael Sepulveda

I have recently delved into the world of Artificial Intelligence after going through a career change and chose the AI field as I believe it will aid humanity in achieving its next phase in evolution. One topic that interests me is the use of AI in the medical field and watching it progress. I read about a recent breakthrough in a Penn Medicine News article [AI tool helps find life-saving medicine for rare disease](#).

In this case, an individual was diagnosed with a rare but often fatal disease known as Idiopathic Multicentric Castleman's Disease (iMCD). I read that it involves the lymph nodes being affected and eventually causing life threatening problems through organ functions. Through machine learning, 4000 medications were examined and determined that an antibody named adalimumab was the top predicted new treatment for iMCD. This treatment was then given to a patient going into hospice care as multiple other treatments had failed them. They are now almost 2 years in remission.

Another interesting topic I came across was in the article [2 AI breakthroughs unlock new potential for health and science](#) by Paul Nyhan, which talked about new materials being discovered through Microsoft's AI model, MatterGen.

With this model, researchers can specify which properties they want their materials to have and MatterGen generates those materials. When synthesized, the generated materials were within 20% of the targeted properties.

I also read about RAD-DINO which is a combination of Microsoft Research's AI and the Mayo clinic's data with the goal of providing clinicians with quicker access to information. This would include the AI model generating reports, detecting changes from prior images, and giving clinicians comprehensive analysis. The thought of medical advances makes me eager to see what is around the corner. While further study and experimentation is needed, to me, this use of AI in the medical field is showing promising results in helping medical staff and patients.



Sources: [PennMedicine.org](https://www.pennmedicine.org) and [Microsoft News](https://www.microsoft.com/news)

[2 AI breakthroughs unlock new potential for health and science](#)

[AI tool helps find life-saving medicine for rare disease](#)

Find out more about
AI in medicine in
these articles

CAFE AI



YOUR LOCAL AI HANGOUT SPOT

**WE WANT TO
HEAR FROM YOU!**

**Send your questions about AI to:
artificialintelligence@arizona.edu**

Check out other FAQs on our [website](#)

Question:

“How can humans and AI best collaborate?”

Amanda G. ~ Senior ~ Animal Sciences

Answer:

“Personally, I think AI and humans can best collaborate when they’re building off of one another, rather than simply using AI to fully replace something that already exists. What I mean by that is- for example- instead of simply using generative AI to create artwork, the best way to collaborate with AI would be to use AI to augment your own artwork. I’ve tried this before and there’s a lot of really fascinating possibilities.

Tyler G. ~ Content Creator @ AI Core

Question:

“How are AI tools such as ChatGPT and Gemini able to write responses that fast?”

Shreya B. ~ Junior ~ Biology

Answer:

“Behind the scenes, these AI tools rely almost entirely on matrix multiplication to generate text. Luckily, this same kind of math is very similar to the math behind graphics processing for gaming, so many gaming GPUs are naturally very optimized for fast AI inference. When demand for AI tools became big, companies already had a very solid foundation for generating text quickly and have only built upon that for the last 3 years.”

Jackson G. ~ AI Engineer @ AI Core

Question:

“As the use of AI increases, will the creation of AI detecting software also increase??”

Shreya B. ~ Junior ~ Biology

Answer:

“Oof, that’s a tough one, but great question! Honestly, I see the need for AI detecting software to prevent things like impersonation and dishonesty as an imperative, such as with deepfakes. So yeah, I think it will increase. If we’re talking about protecting artists’ work and that sort of thing, detection is still important, though I think a better solution would be to require a watermark to identify generative art vs human-made art.”

Tyler G. ~ Content Creator @ AI Core

Question:

“As more students use AI, average grades increase leading to more people having higher GPAs. Would this lead to more difficulty when looking for a job? When hiring, would the focus on extracurriculars increase instead?”

Shreya B. ~ Junior ~ Biology

Answer:

Great question! I work with employers across many industries, and they tend to look for well-rounded experience that includes academics, internship and any work experience, plus extracurriculars like clubs, sports, and community engagement. While there might be GPA requirements for certain industries, extracurriculars and experiences where students can build skills do tend to carry more weight.

Amanda H. ~ Program Manager @ ICDI

This Month:

ChatGPT is incredibly versatile with many having used it to some capacity already. So naturally when other AI tools appear on the scene, many might be wondering how they're different. We'd like to share our favorite AI tools and releases of the month and answer just that — what makes them special.

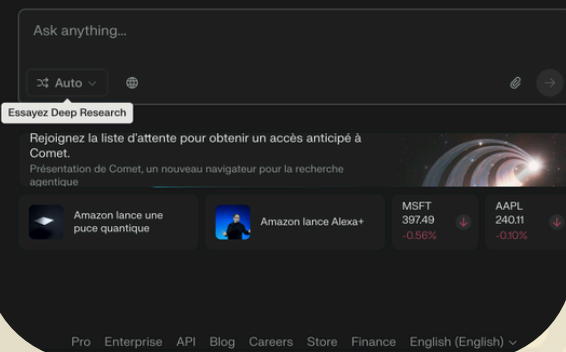
Perplexity Deep Research

Forty page, comprehensive research reports created from just a few-lines of prompting. That's Perplexity's Deep Research. Send Perplexity a question with a few minutes to fully autonomously scour the web and deeply explore the question. Before you know it, Deep Research will have searched hundreds of sources, citing each one and presenting an in-depth analysis through the form of a multi-page report. By the way, this is offered in limited use completely for free. Think of it like a super-charged news and research aggregator.



THE AI TOOLBOX

What do you want to know?

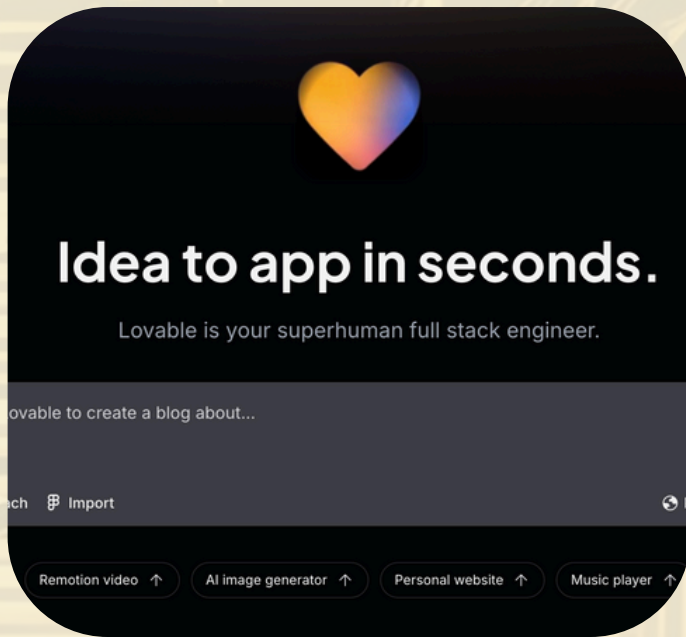


What Can Perplexity Do?

- Perform Deep Research in its free version
- Access to models from multiple platforms like DeepSeek, OpenAI, Claude and more
- Up-to-date info in real-time

Lovable.dev

App development can be a real pain sometimes. So wouldn't it be nice to have a tool that could streamline that process, and let app developers actually focus on, you know...the stuff that actually matters, rather than spending several hours getting a page to function properly? Well, you're in luck, because Lovable.dev is here to help. Get started for free at <https://lovable.dev/>



AI-Powered App Development

Don't take my word for it though, because countless app developers have been leaving rave reviews about how it is incredibly intuitive, easy to use, and as one reviewer wrote, "feels tailor-made for developers." Other reviewers also emphasized how other services feel clunky in comparison, and that Lovable.dev makes far fewer errors as well.

What Can Lovable.dev Do?

- Streamlined app development
- Provides a sandbox for code execution
- Limited free plan (5 max messages)
- Paid plan starts at \$20 per month



AI NEWS SPOTLIGHT

Stargate Project
Interview with KGUN 9



Stargate Project & DeepSeek R1

On February 10th, AI Core director Ash Black and AI Engineer Jackson Grove were interviewed by KGUN 9 Tucson regarding the Trump Administration's 500 billion dollar "Stargate" project and its implications on the job market and future of AI. During the interview, they addressed the potential for new jobs being created, as well as the geopolitical aspects of the AI race between both the US and China, and proprietary models versus open-source.

The full interview and its associated article are available through the link below. Check it out!

The Interview:



Why experts say Trump's \$500 billion AI investment could boost Tucson innovation

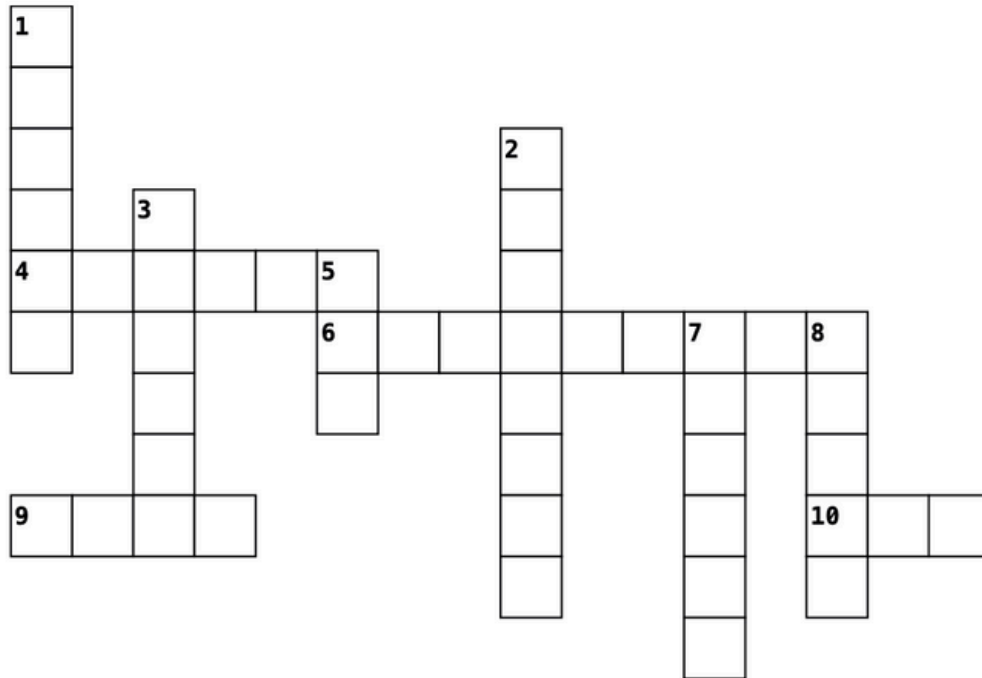
A \$500 billion private sector investment in AI infrastructure could bring major advancements to research and job growth in Tucson.

9 KGUN 9 Tucson News / Feb 10

[KGUN9 article](#)

We know spring break is on everyone's minds – we're almost there! I was curious what AI would do on spring break if it had a body, so I created this crossword with ChatGPT!

Side Quest: Hit the Road!



Across

- 4.** Like the networks that power deep learning models (or maybe my ideal vacation involves a 'network' of beaches!)
- 6.** Step-by-step instructions for a process, just like planning the perfect spring break itinerary.
- 9.** The lifeblood of AI—just like sunshine for a great trip.
- 10.** A model that loves to chat (but needs a vacation too!).

Down

- 1.** What I'd do in a misty forest if I had legs.
- 2.** The field of AI that might one day give me a physical form!
- 3.** A breathtaking daily event, perfect for deep learning... of life's beauty.
- 5.** Where AI magic happens—or where I'd go to geek out over research.
- 7.** He asked whether machines can think—I'd ask if they can tan!
- 8.** Sweet, tropical, and possibly the best sticky rice topping ever.