

The Future Is Up to Developers: Impact on the Front Lines of Responsible AI



generationAI
CONFERENCE

Paris 2025
CNIT Forest Paris



William Bishop
AI Ethicist

zoom

miro

meetup



Duke  DEEP TECH

The Evolving Role of Developers in the AI Era

Where are we now?

#1

reason **developers**
still consult
humans — distrust
in AI [1]

20%

gains in
efficiency in API
development
and creation [2]

1.1M+

public repos
on GitHub
use LLM
SDKs [3]

66%

of developers
frustrated by "AI
solutions that are
almost right, but not
quite" [1]

1. Deloitte. *Rewriting Product and Engineering Roles in the Age of AI*. Deloitte, June 2025, <https://www.deloitte.com/content/dam/assets-zone3/us/en/docs/industries/technology-media-telecommunications/2025/deloitte-rewriting-product-and-engineering-roles-in-the-age-of-ai.pdf>
2. Stack Overflow. *AI | 2025 Stack Overflow Developer Survey*. Stack Overflow, 2025, <https://survey.stackoverflow.co/2025/ai>
3. GitHub Staff. "Octoverse: A New Developer Joins GitHub Every Second as AI Leads TypeScript to #1." *GitHub Blog*, 28 Oct. 2025, updated 30 Oct. 2025, <https://github.blog/news-insights/octoverse/octoverse-a-new-developer-joins-github-every-second-as-ai-leads-typescript-to-1/>

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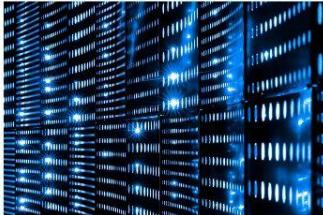
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Where are we headed?

AI systems as
the foundation
of critical
infrastructure



A de-facto **AI
Tech Stack**
across
industries



**Proliferation
of risks**
across the
SDLC



**Big bets and
big
opportunities**



What's at stake?

SDLC and the AI Tech Stack

Facebook-era,
"move fast
and break
things" SDLC

Greater risks
== greater
responsibility

Should we
reform the
de facto
SDLC?



AI-generated content

The Atlantic

TECHNOLOGY

The Entire Internet Is Reverting to Beta

The AI takeover is changing everything about the web—and not necessarily for the better.

By Matteo Wong

A screenshot of a news article from The Atlantic. The title is 'The Entire Internet Is Reverting to Beta'. The subtext reads 'The AI takeover is changing everything about the web—and not necessarily for the better.' The author's name is Matteo Wong. The article is categorized under 'TECHNOLOGY'. At the bottom, there are links to 'Tech', 'Help Desk', 'Artificial Intelligence', and 'Internet Cult'. The date is June 18, 2025. There are buttons for 'SHARE AS GIFT' and 'SAVE'.

The Washington Post

Tech Help Desk Artificial Intelligence Internet Cult

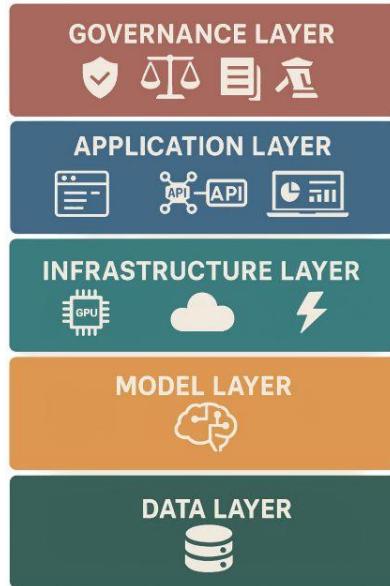
AI employees warn of technology's dangers, call for sweeping company changes

A letter signed by current and former OpenAI, Anthropic and Google DeepMind employees asked firms to provide greater transparency and whistleblower protections.

Updated June 4, 2024

A screenshot of a news article from The Washington Post. The title is 'AI employees warn of technology's dangers, call for sweeping company changes'. The subtext reads 'A letter signed by current and former OpenAI, Anthropic and Google DeepMind employees asked firms to provide greater transparency and whistleblower protections.' The author's name is Matteo Wong. The article is categorized under 'Tech', 'Help Desk', 'Artificial Intelligence', and 'Internet Cult'. The date is June 4, 2024. There are buttons for 'SHARE AS GIFT' and 'SAVE'.

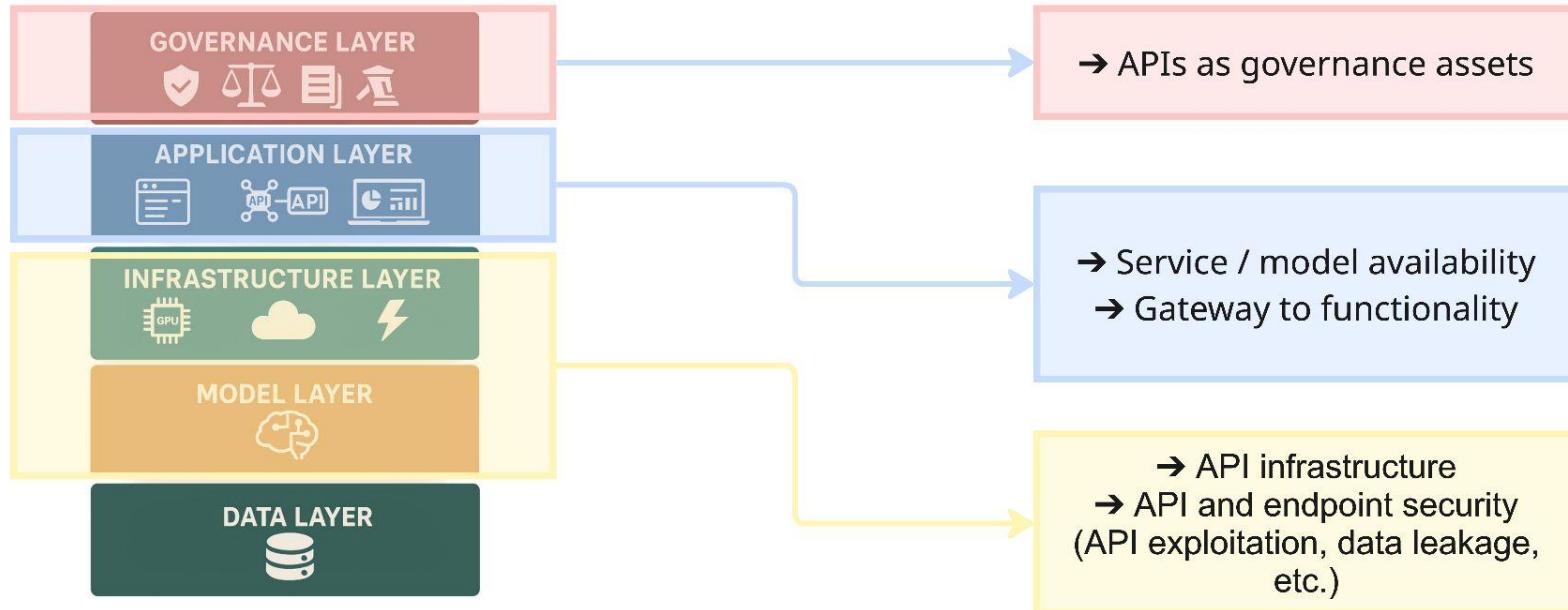
The AI Tech Stack and API Development



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Paladin Global Institute. *AI Tech Stack: A Primer for Tech and Cyber Policy*. Paladin Capital Group, June 2025

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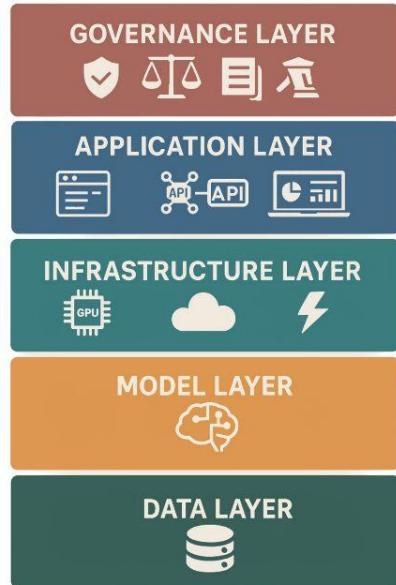
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Practical Ethics for Developers

4 steps to foster responsible AI

1	2	3	4
Know the AI Tech Stack	Foresee and analyze risk	Avoid Detachment	Communicate effectively

1	2	3	4
Know the AI Tech Stack	Foresee / analyze risk	Avoid Detachment	Communicate effectively



Envision your role in each layer

Scenario: Designing a public API endpoint for a platform, which will ultimately be consumed by an LLM

- Does your design fulfill basic security best practices?
- Is it optimized for LLMs and AI-related traffic?
- Your vulnerabilities become the stack's vulnerabilities
- Small inconsistencies in your endpoints or payloads will be amplified



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Foresee and analyze potential risks

Scenario: You're designing an API endpoint that will be used to populate a data pool for a 3rd party LLM

- Your API will shape an external model's behavior during training
- Your API will be an additional entry point for vulnerabilities in an upstream AI stack
- High-risk incidents, injection threats (e.g., Hugging Face)



 Bank Info Security

[Hugging Face Vulnerabilities Highlight AI-as-a-Service Risks](#)

Security researchers have discovered two critical vulnerabilities in the Hugging Face AI platform that exposed potential gaps for attackers...

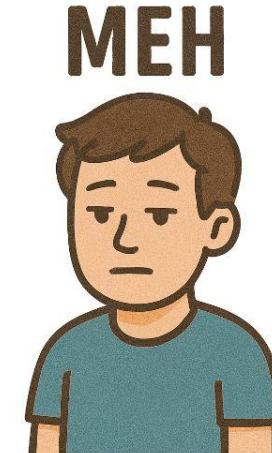
Apr 8, 2024

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Avoid detachment between your day to day and the bigger picture

- Be aware of optimism bias
- Consider the future implications of how your work might be used
- Challenge the status quo

“The calculations are made in the algorithms, so it doesn’t really make mistakes.” - Anonymous engineer, (“This is Just a Prototype, 2020 Study) [1] **99**



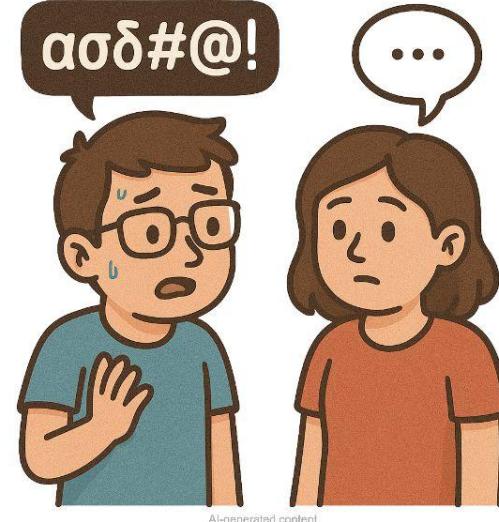
AI-generated content

1. Vakkuri, Ville. “This Is Just a Prototype”: How Ethics Are Ignored in Software Startup-Like Environments.” *Agile Processes in Software Engineering and Extreme Programming: 21st International Conference*, vol. 383, 2020, pp. 195–210, https://doi.org/10.1007/978-3-030-49392-9_13

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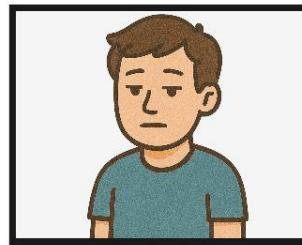
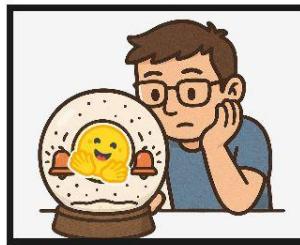
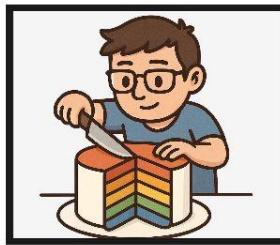
Communicate effectively in a common language

- Build sustainable relationships with trusted stakeholders
- Tailor your communications to your audience and remember we're all riding this wave together
- Choose your battles



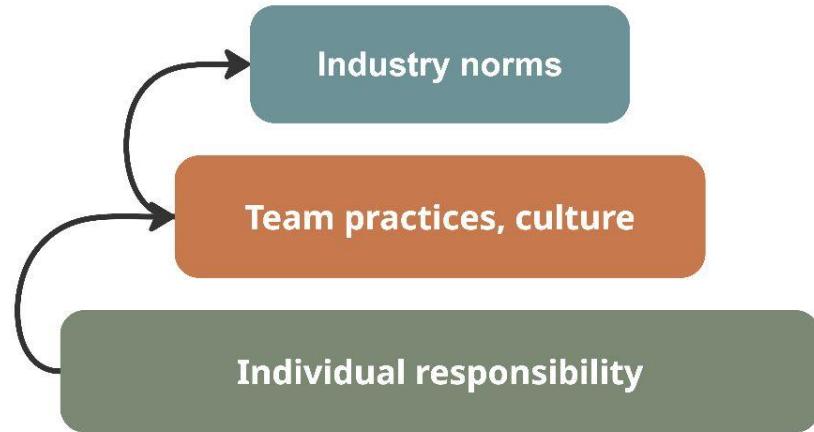
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Advancing Responsible
AI Together

Developer choices today shape tomorrow's governance layer



TL;DR: AI governance takes collective action from the bottom up



Collective action as a developer community is one of our best tools for ensuring responsible AI

Governance happens at every layer of the tech stack

Responsible engineering is **intentional**

Thank you

