CIKLUM | SPEAKER'S CORNER

December, 12 | 16:30 (CET) | English

AI and beyond:
staying relevant in a rapidly changing landscape

Daniel Minnick

Head of Data
& AI at Ciklum

Experiences of tomorrow. Engineered together.

CIKLUM

We transform how people experience the business. All through next generation technology.

What we do:

- Product Engineering
- Intelligent Automation
- Data & Analytics

2002 founded

4000+ professionals

20+ offices

300+ clients

Leading companies choose us:

JUST EAT Takeaway.com · METRO MARKETS · eToro · ZURICH · pay · Greensill · KANTAR · RETAIL · dacadoo

Our Global Delivery Centres

Global Reach, Local Insight - Ciklum bridges the best in tech from various geographies

CIKLUM

Central & Eastern Europe

- Bulgaria
- Czech Republic
- Poland
- Romania
- Slovakia
- Spain
- Ukraine
- United Kingdom

Asia

- India
- Pakistan

LATAM

- Argentina
- Uruguay

North America

- Canada
- USA

Meet the speaker

- Dan has over 2 decades of experience in energy, fintech, central government, logistics & other industries.
- He specializes in helping businesses understand the potential of their data, the power of artificial intelligence, and how it can be used to change users' day-to-day experiences both inside organizations and in the external consumer world.

Daniel Minnick
Head of Data & AI at Ciklum

AI in 2024

Wider Industry

Proliferation of GenAI

Enterprise adoption growth

User-friendly development platforms for low code AI application development

65%
Enterprises reporting regular use of GenAI

AI Hardware

Rise of NVidia

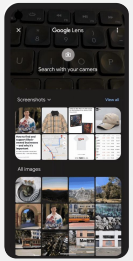
AWS releases Tranium2 with Tranium3 due in 2025

217%
Data centre revenue increase over 2023

Multimodal

Latest models have added multimodal capability driving innovation

GenAI applications across multiple industry sectors including physical & biological sciences



Open Source

Smaller efficient models with fewer parameters demonstrate performance comp. to large models

Facilitate transparency & innovation, allowing broader participation in AI development

Ethics & Regulation

Europe puts the AI Act into Law. US (California) & UK start to develop their own guidelines / regulation

Responsible AI: organisations prioritise ethical AI development

AI in 2024

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Exemplary GenAI Clients

AstraZeneca
axel springer
BigChange
Deloitte.
Dotdash meredith
eliorgroup
ibssoftware
INSIGHT PARTNERS
inspired
JLL
JLR
Paysafe:
Santander
Savanta:
myZerto

GenAI Practice In Numbers

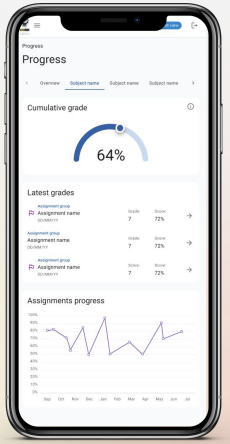
>19 GenAI Projects	>10 In-Production GenAI Builds	>130 AI & GenAI Experts	>20 Workshops & Hackathons Conducted	2 Industry Recognitions within the Last 6 Months
1st NVIDIA Partner in Europe	11 Industries Served	>150 Scientific Publications by Team Members	>250 Use Cases Identified & Assessed	3 Powerful Computational Servers in 3 Jurisdictions

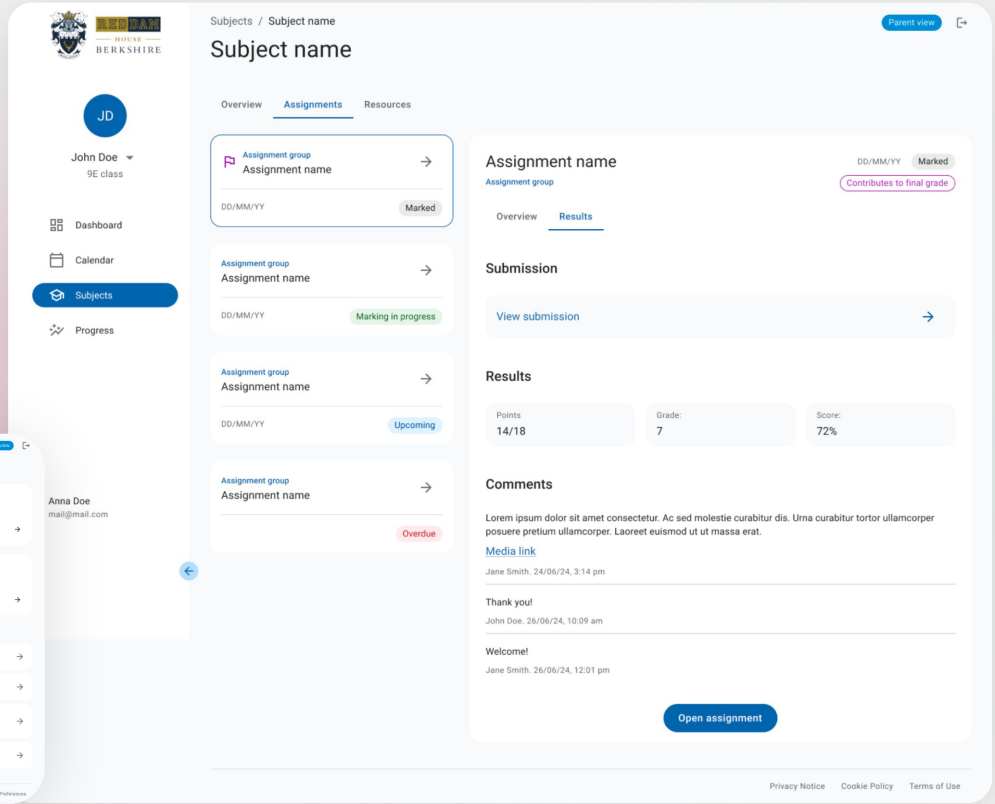
ANTHROP\C
aws
Azure
CodeWhisperer
cohere
databricks
GitHub Copilot
Hugging Face
kore.ai
Labelbox
LangChain
LlamaIndex
Meta
NVIDIA
OpenAI
OpenSearch
Pinecone
python
snowflake
Vertex.ai
...

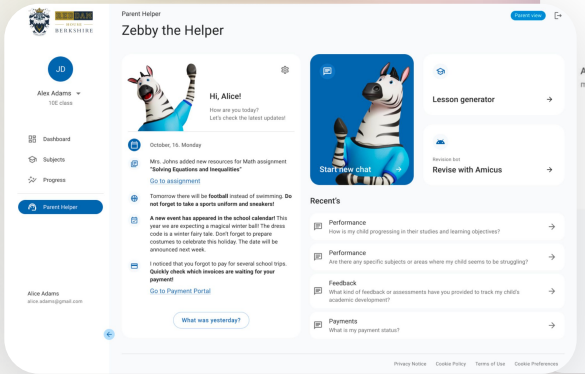
inspired

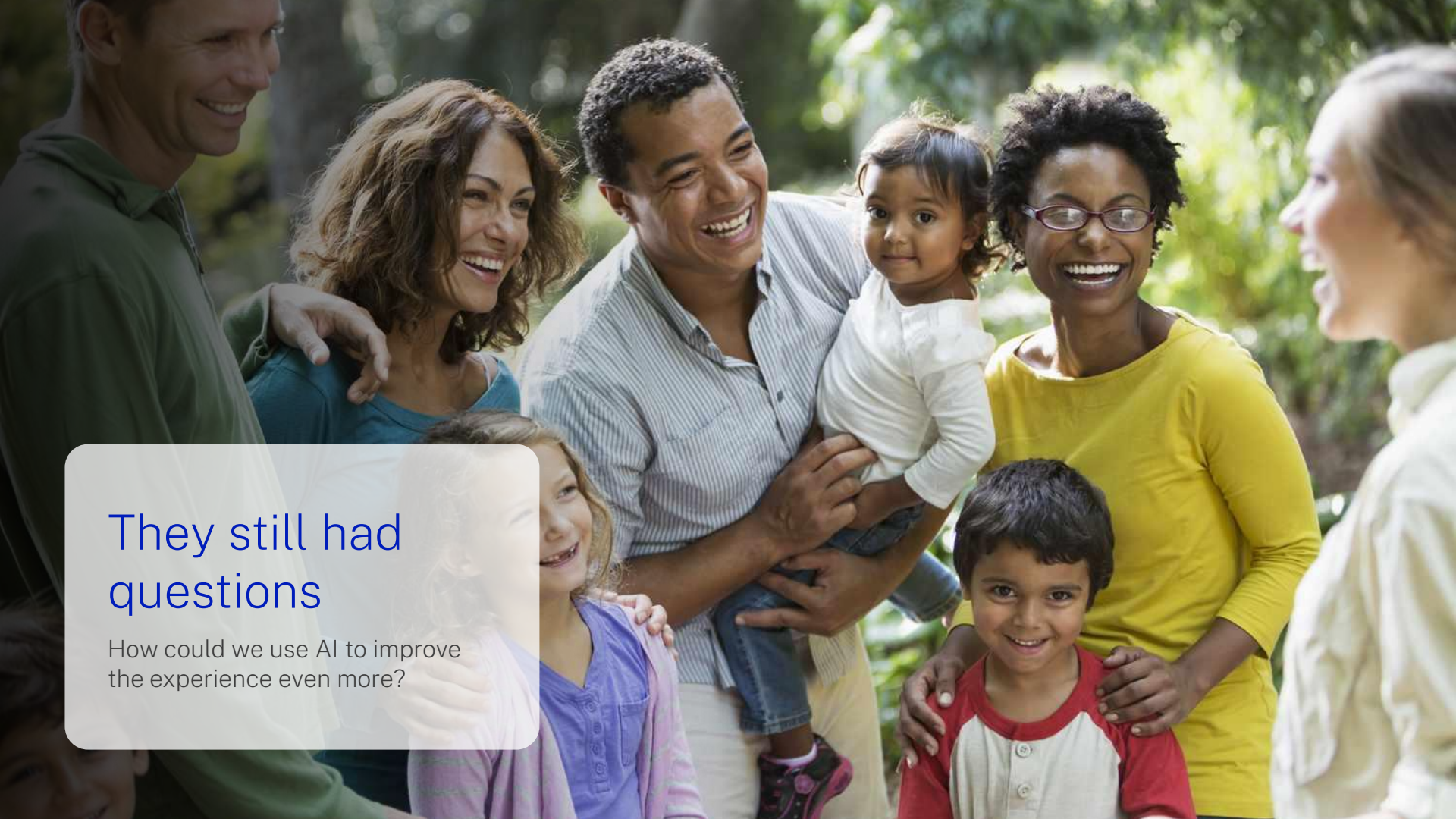
How was your day at school?

Fine


Progress
Progress
Overview
Subject name
Subject name
Subject name
Cumulative grade
64%
Latest grades
Assignment group
Assignment name
DD/MM/YY
Grade:
7
Score:
72%
Assignments progress


READAM HOUSE BERKSHIRE
JD
John Doe
9E class
Dashboard
Calendar
Subjects
Progress
Subjects / Subject name
Parent view
Subject name
Overview
Assignments
Resources
Assignment group
Assignment name
DD/MM/YY
Marked
Assignment group
Assignment name
DD/MM/YY
Marking in progress
Assignment group
Assignment name
DD/MM/YY
Upcoming
Assignment group
Assignment name
Overdue
Assignment name
Assignment group
DD/MM/YY
Marked
Contributes to final grade
Overview
Results
Submission
View submission
Results
Points
14/18
Grade:
7
Score:
72%
Comments
Lorem ipsum dolor sit amet consectetur. Ac sed molestie curabitur dis. Urna curabitur tortor ullamcorper posuere pretium ullamcorper. Laoreet euismod ut ut massa erat.
Media link
Jane Smith. 24/06/24, 3:14 pm
Thank you!
John Doe. 26/06/24, 10:09 am
Welcome!
Jane Smith. 26/06/24, 12:01 pm
Open assignment
Anna Doe
mail@mail.com
Privacy Notice
Cookie Policy
Terms of Use


Parent Helper
Zebby the Helper
Parent view
JD
Alex Adams
10E class
Dashboard
Subjects
Progress
Parent Helper
Alice Adams
Hi, Alice!
How are you today?
Let's check the latest updates!
October, 16. Monday
Mrs. Johns added new resources for Math assignment "Solving Equations and Inequalities"
Go to assignment
Tomorrow there will be football instead of swimming. Do not forget to take a sports uniform and sneakers!
A new event has appeared in the school calendar! This year we are expecting a magical winter ball! The dress code is a winter fairy tale. Don't forget to prepare costumes to celebrate this holiday. The date will be announced next week.
I noticed that you forgot to pay for several school trips. Quickly check which invoices are waiting for your payment!
Go to Payment Portal
What was yesterday?
Start new chat
Lesson generator
Revise with Amicus
Recent's
Performance
How is my child progressing in their studies and learning objectives?
Performance
Are there any specific subjects or areas where my child seems to be struggling?
Feedback
What kind of feedback or assessments have you provided to track my child's academic development?
Payments
What is my payment status?
Privacy Notice
Cookie Policy
Terms of Use
Cookie Preferences



They still had questions

How could we use AI to improve the experience even more?

How was your day at school?

Do they need football kit today???!!!

Is today a swimming day???!!!!

When is the school play???!!!

Parents don’t want to look stupid

Deep Dive

Architectural Assessment

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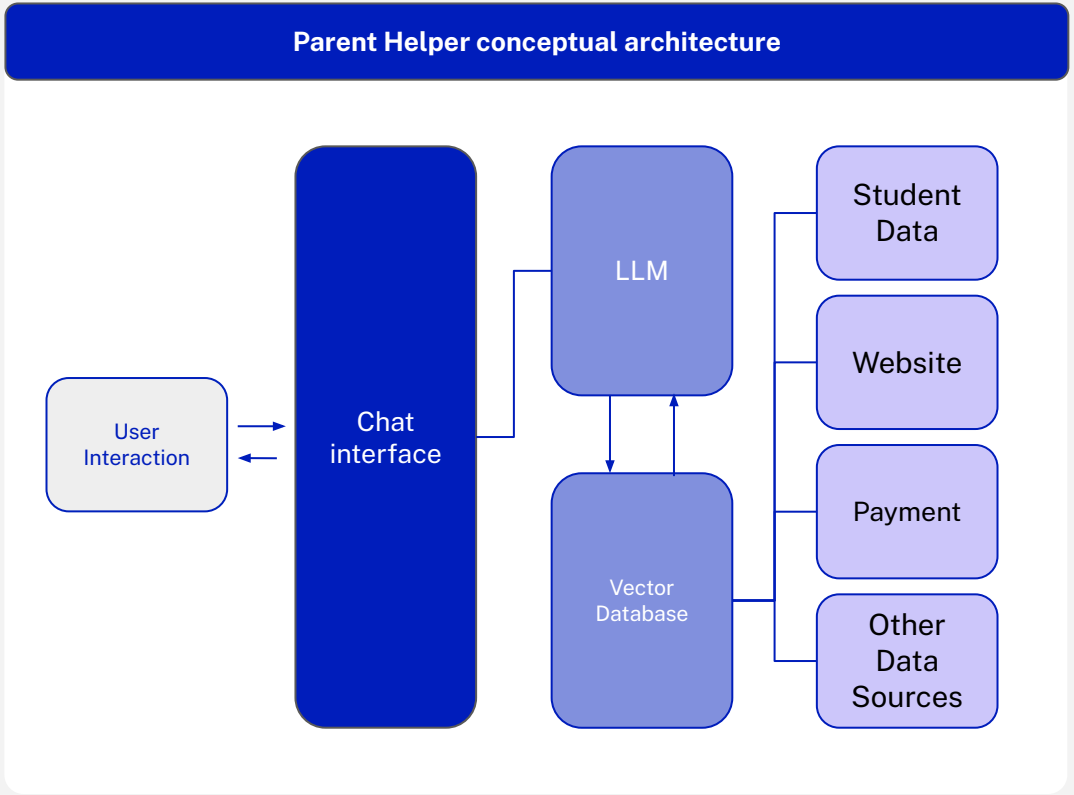

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Data & AI in 2025

Moving into 2025

Key trends and how we're responding to them

Client

- Acceleration & Innovation
- Responsible AI
- Our Offerings

Technical

- AI Enabled Development
- Agentic AI
- Modern Approach & Languages

How we're Accelerating Clients' Agenda

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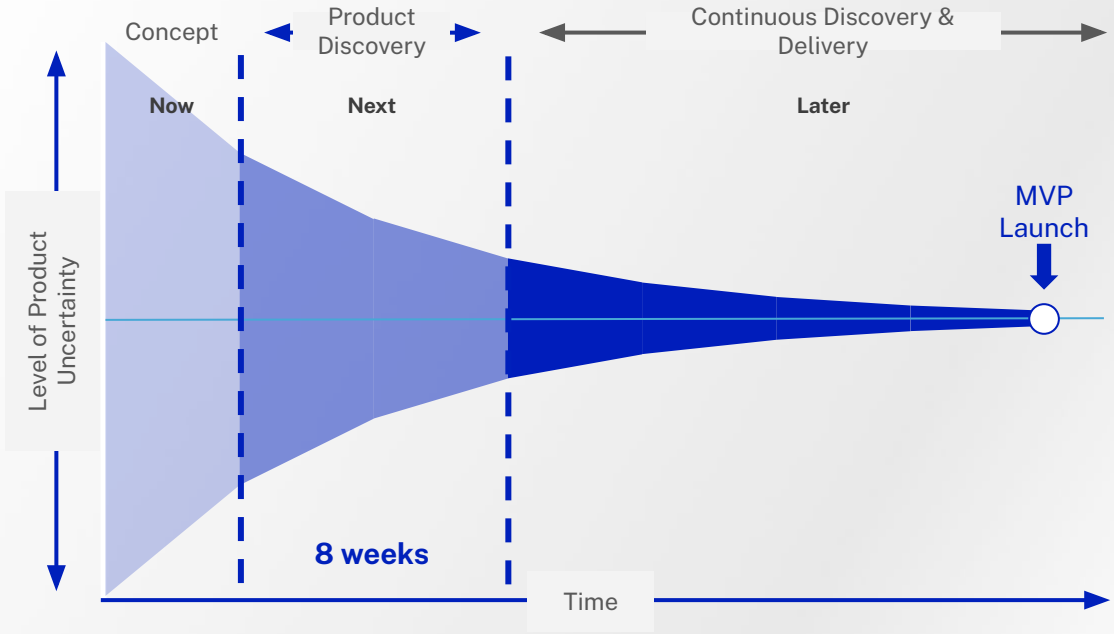
Product Discovery



Why do Product Discovery?

- **Increases the likelihood of success** - Understanding Customer needs allows teams to shoot down bad ideas early and come up with a strong value proposition
- **Makes sure that expensive ideas work before they are built** - Product ideas can be tested in a very quick way without investing a lot of money
- **Increases overall speed to market** - Identifying the critical features needed to deliver value means Products can be launched to market quicker
- **Identifies risks before they become a problem in Delivery** - Through technical and business discussions any associated risks are identified early to allow appropriate management

How we're Accelerating Clients' Agenda

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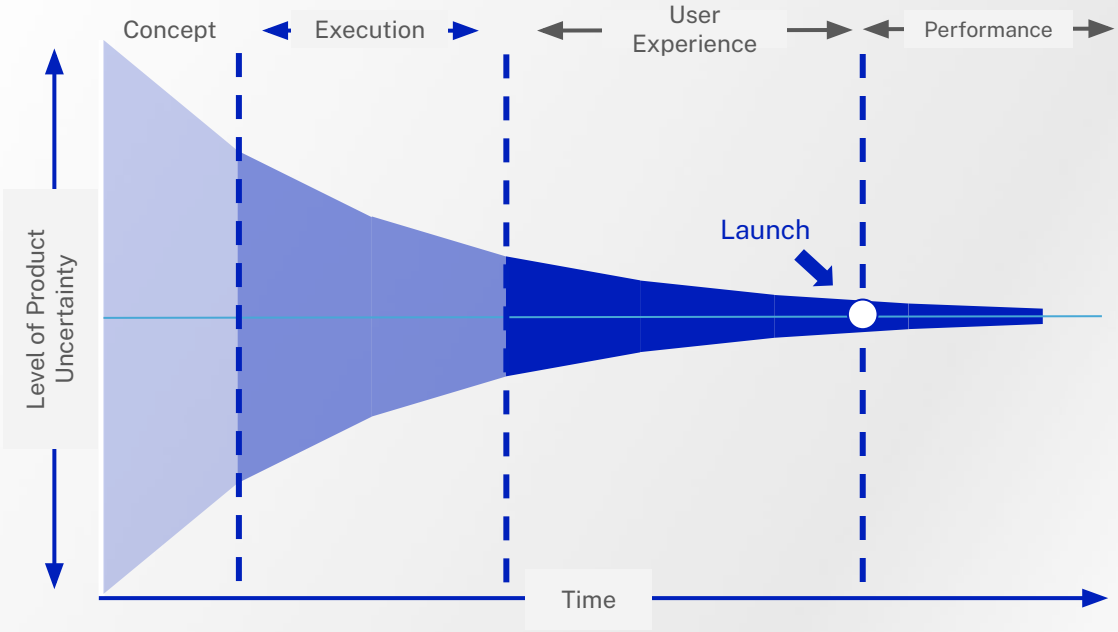
Product Discovery



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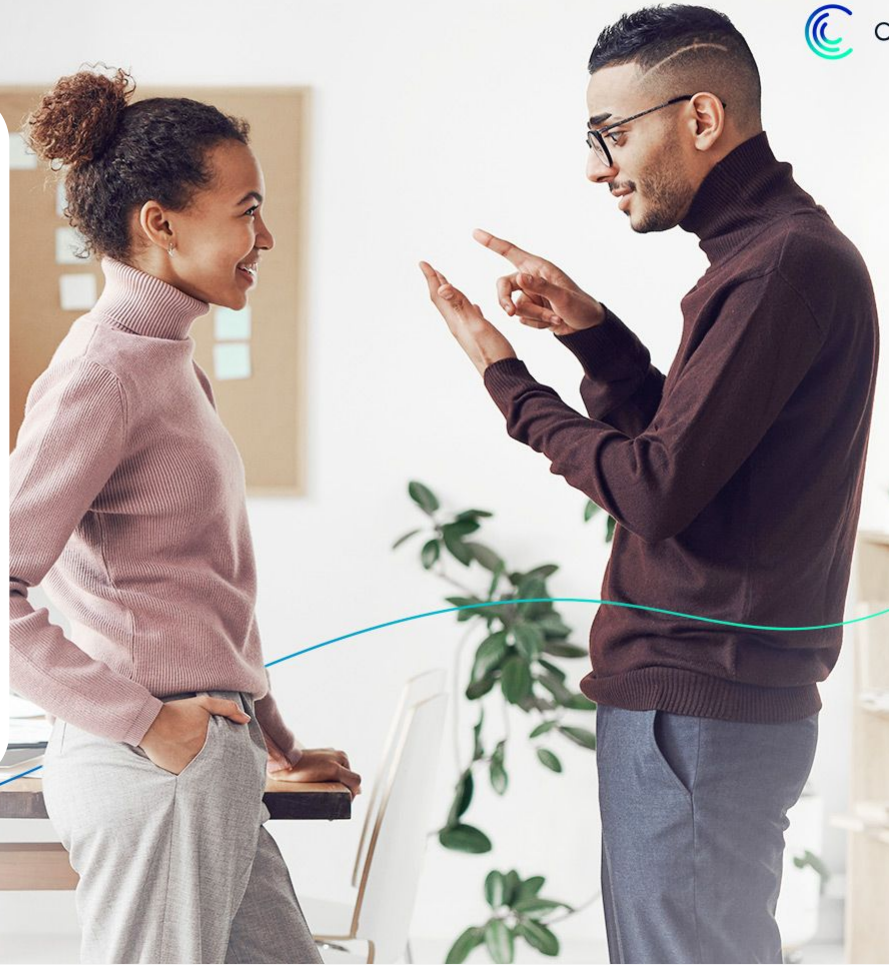
Responsible AI

Helping Clients to be AI Ready

Definition:

Strategic approach to AI governance & best practices that will help your organisation to **manage AI applications effectively**, **mitigate risks** and create a safe environment where you can **innovate & develop AI applications successfully**, get them into Production and drive adoption.



We’ve been here before... GDPR

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Breach penalties: **€10m or 2% Global Turnover**

Since 2018

€4.48b

Avg fine

€2,142,712

Regulatory Risk

Introduction of the AI Act in the EU:

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Prohibited Practice

€35m or 7%

of global turnover

Other & High Risk Systems

€15m or 3%

of global turnover

Risk to Reputation

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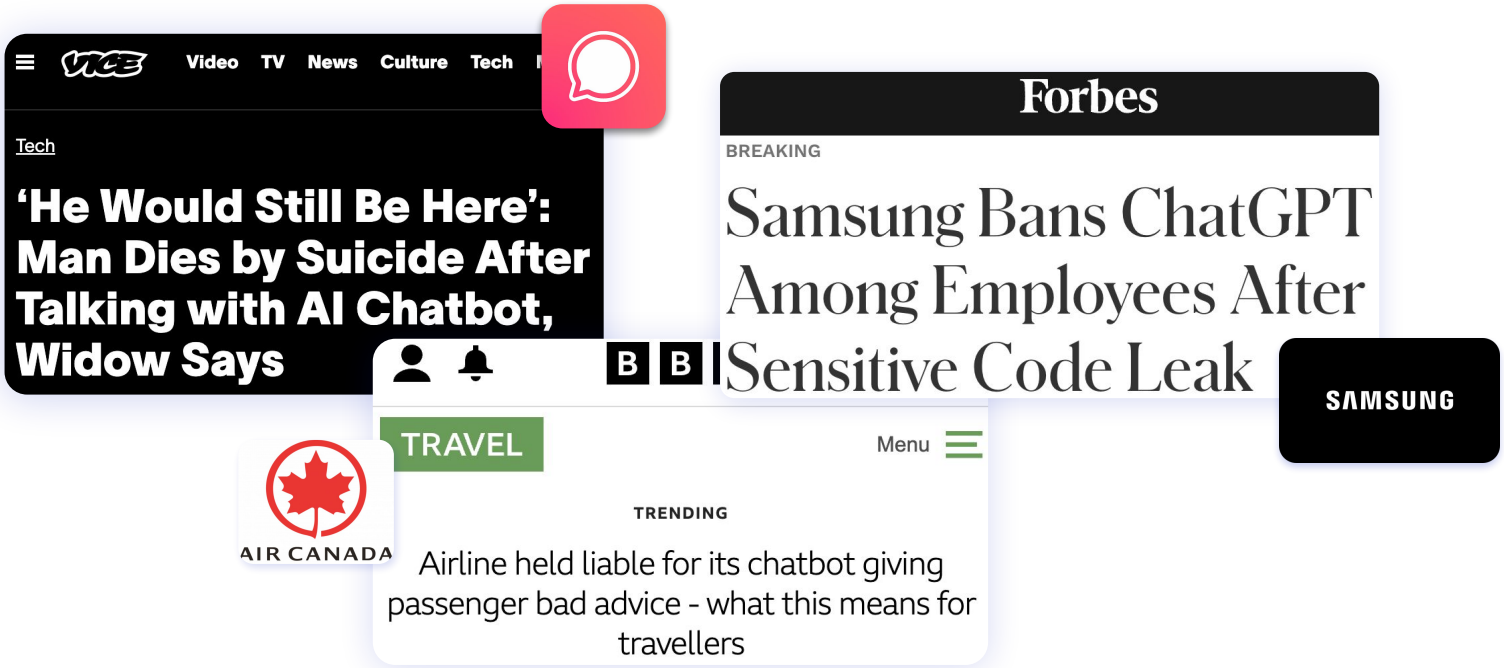
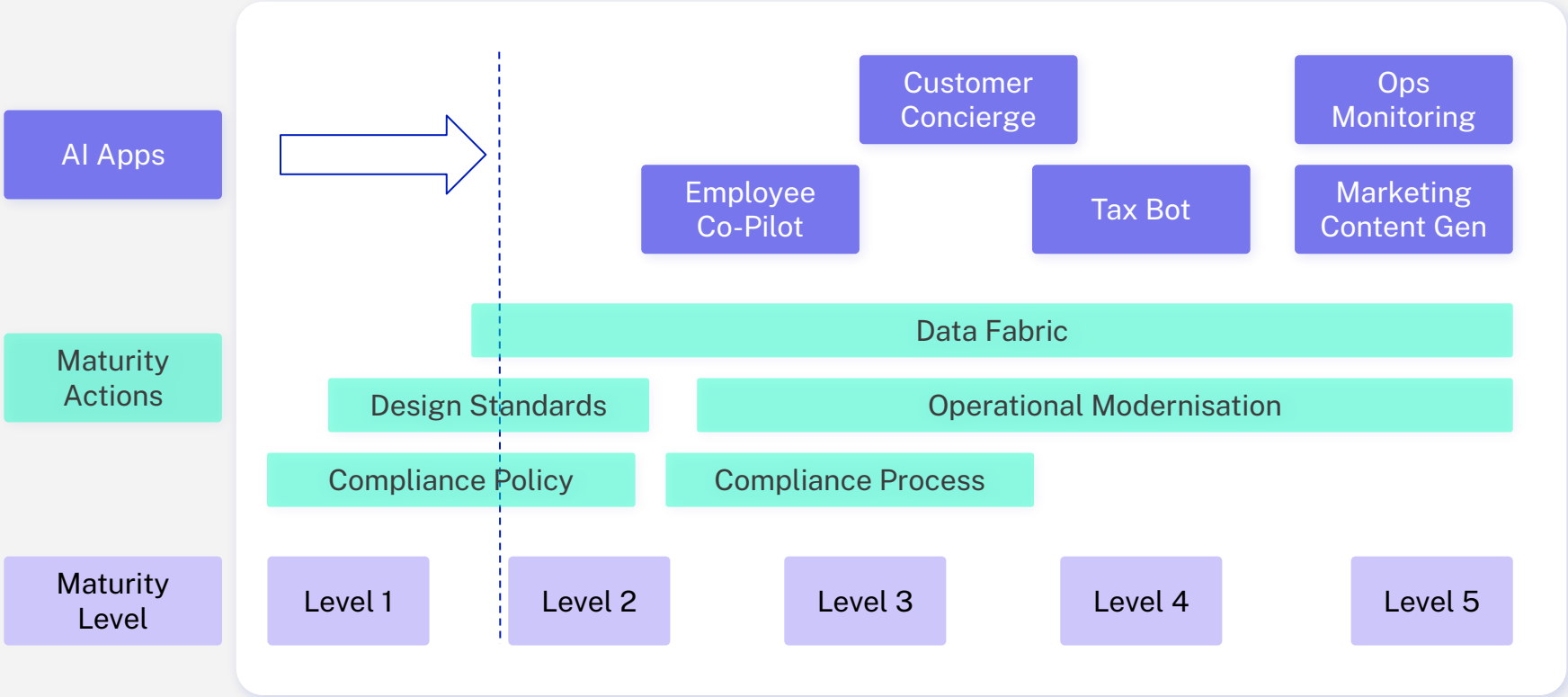
AI done badly or recklessly can be very dangerous



Responsible AI: Maturity & Innovation



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Data & AI
Development

The Role of the Developer

Overhyped: Replacing Developers with AI

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At least one organization will try to replace 50% of its developers with AI and fail.*

In Forrester's Developer Survey, 2024, developers indicated that they spend about 24% of their time coding; the remaining time is spent doing designs, writing tests, fixing bugs, and meeting with stakeholders

* *https://www.forrester.com/blogs/predictions-2025-software-development/*

AI Coding Assistants

The rise of the TuringBot

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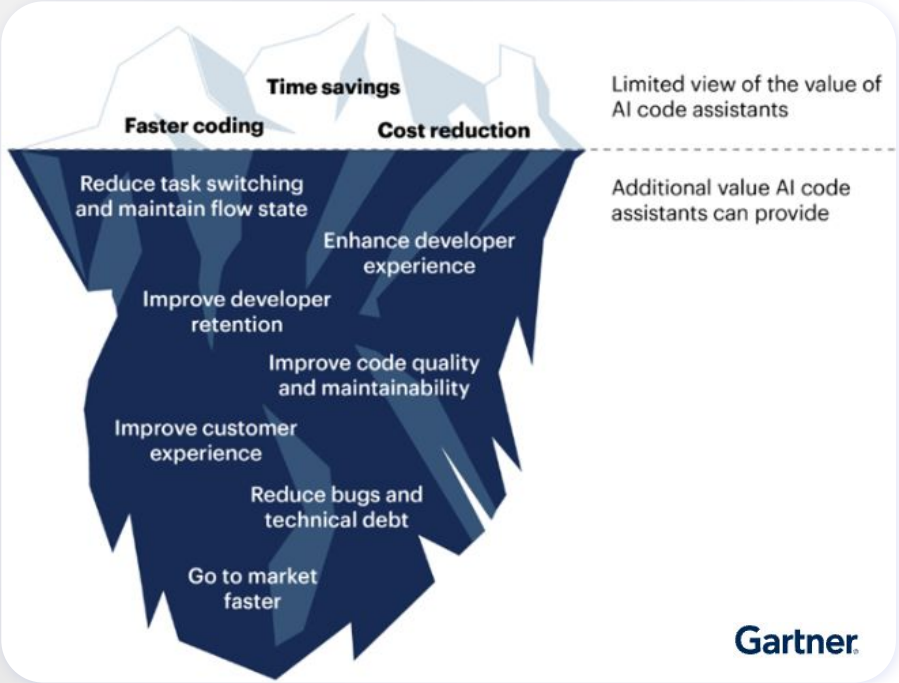
50-60%

75-85%

2023 | 2024 | 2025 | ... | 2028

10%
Developers use AI Code Assistants

Universal
Developers use AI Code Assistants



Software Development in 2025

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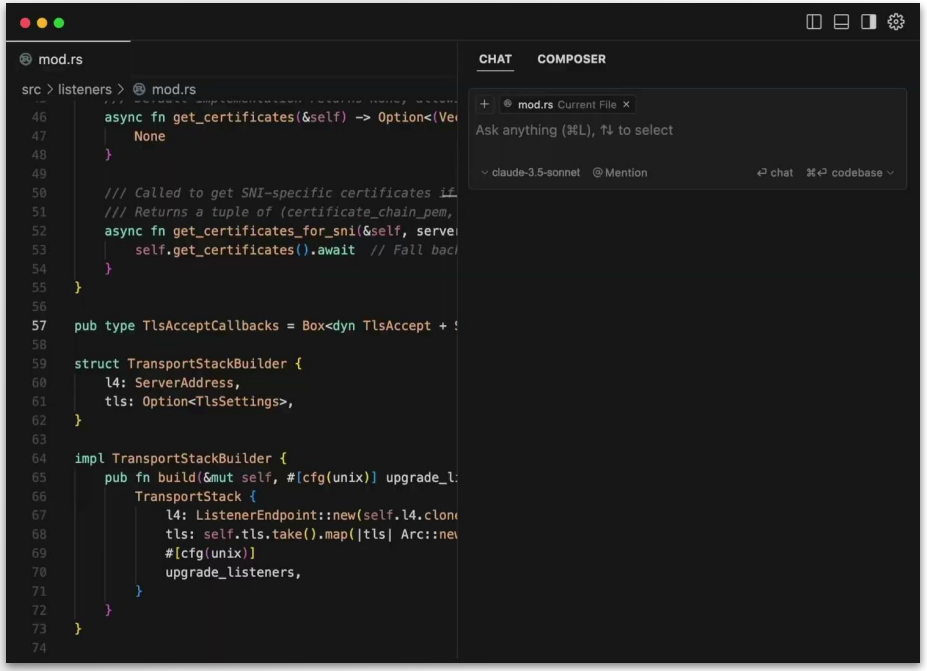
Modernisation

Adopting New Languages:

Exploring how we can leverage new languages to drive performance in Data & AI Engineering

Rust
Go
Mojo
Bend

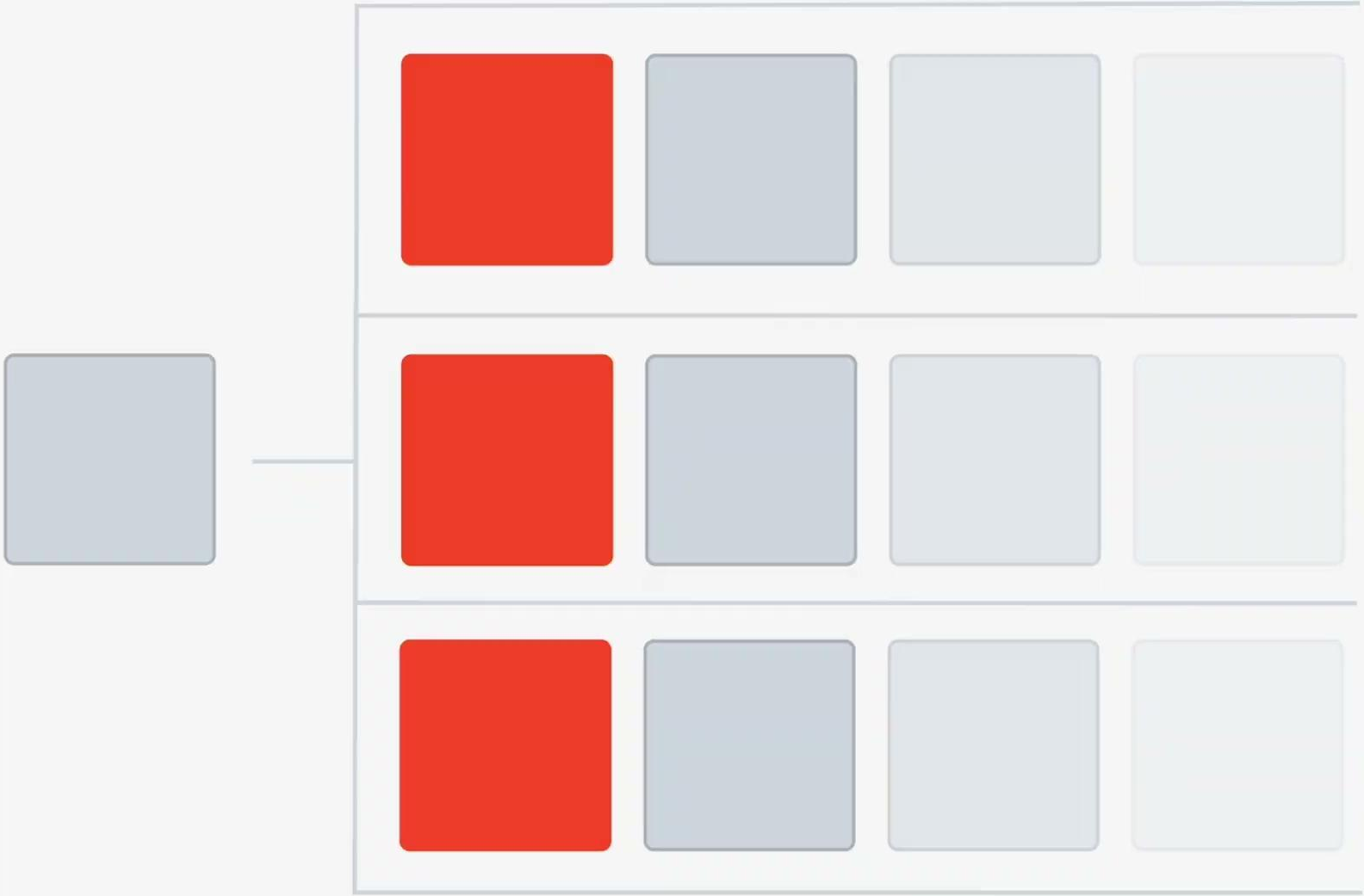


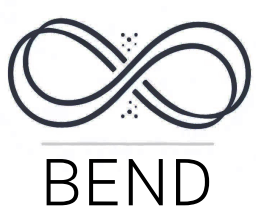
CROWDSTRIKE
GO
Fast
Secure
Efficient

```
1  def listSum(numbers):
2    if not numbers:
3      return 0
4    else:
5      (f, rest) = numbers
6      return f + listSum(rest)
7
8  myList = (1, (2, (3, None)))
9  total = listSum(myList)
```

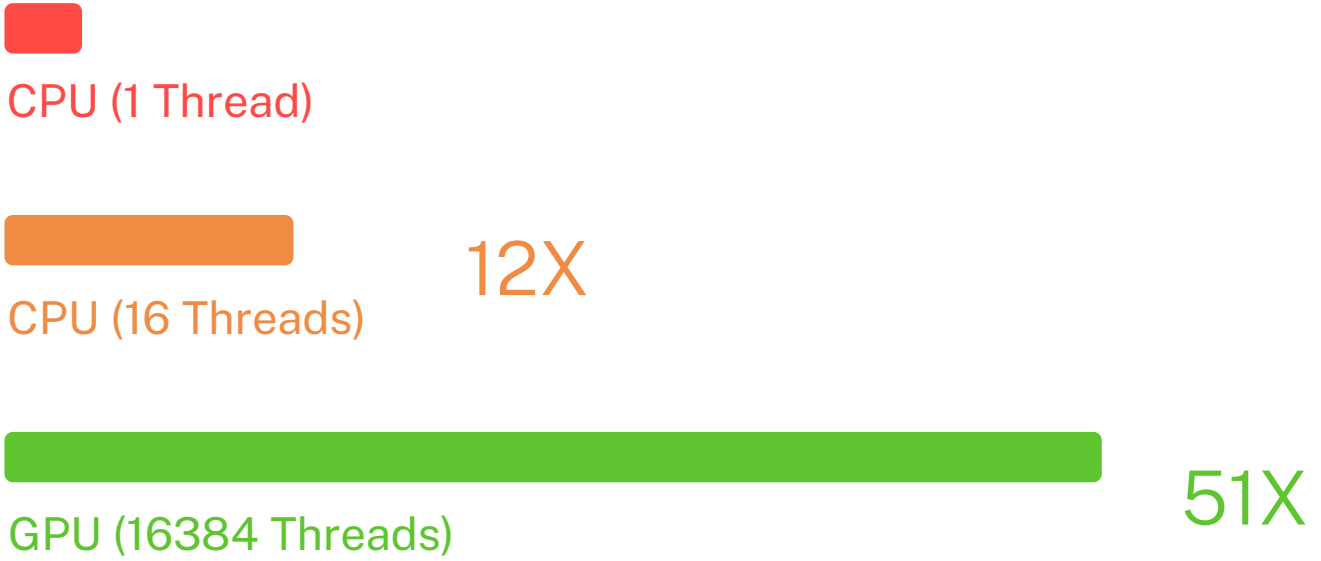
line that just executed

next line to execute





Mojo 🔥


CPU (1 Thread)
CPU (16 Threads)
12X
GPU (16384 Threads)
51X

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Mandelbrot Algorithm

1027 seconds

Mojo🔥

Mandelbrot Algorithm

0.03 seconds

🤯 68,000x 🤯

Agentic AI

AI takes on more responsibility

agency

/ˈeɪdʒ(ə)nsi/
action or intervention producing a particular effect.

From Assistant to Agent

Not responding to prompts - agents will act autonomously:

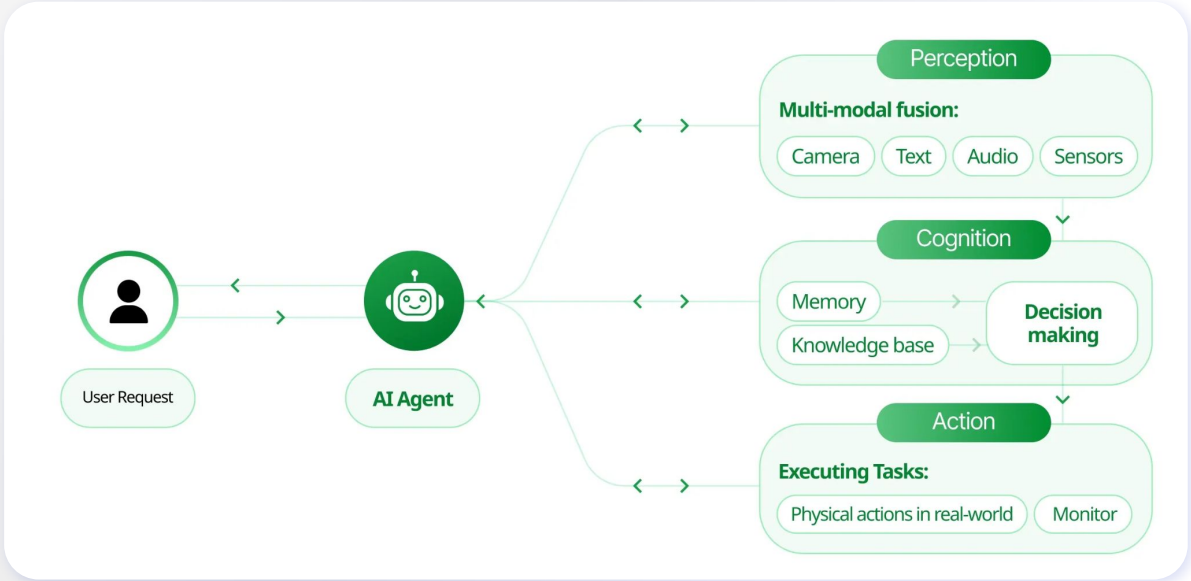
- Interact with other agents
- Make decisions (within parameters)
- Complete complex tasks without constant oversight
- Goal Oriented Behaviour

Agentic AI

AI takes on more responsibility

Agentic Behaviours

- Natural Language Processing
- Interpretation & Reasoning
- Workflow Generation
- Workflow Execution
- Goal Oriented
- Continuous Learning & Adaptability



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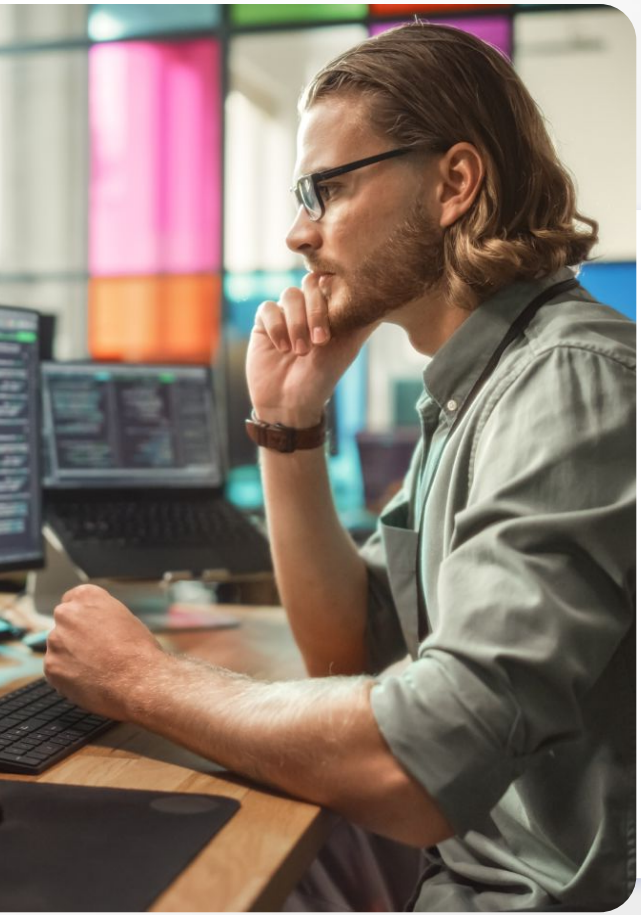
Personal Development: Crucial Skills



Skills that are Crucial

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Responsible AI: Working with the Business

Data & AI Strategy | Governance

Creating the foundations to get the organisation ‘AI Ready’

Policy & Process

- CoE
- AI Literacy: Education
- Over-reliance on AI

Operations

- DevOps
- MLOps
- Observability / Monitoring

Compliance

- Regulation: EU AI Act
- Compliance: ISO 42001

Data

- Data Quality
- Master Data Management
- Discoverability: Catalogue

Design & Development Standards

- Transparency
- Explainability Frameworks
- Decision Logging
- Documentation

Skills Requirements 2025

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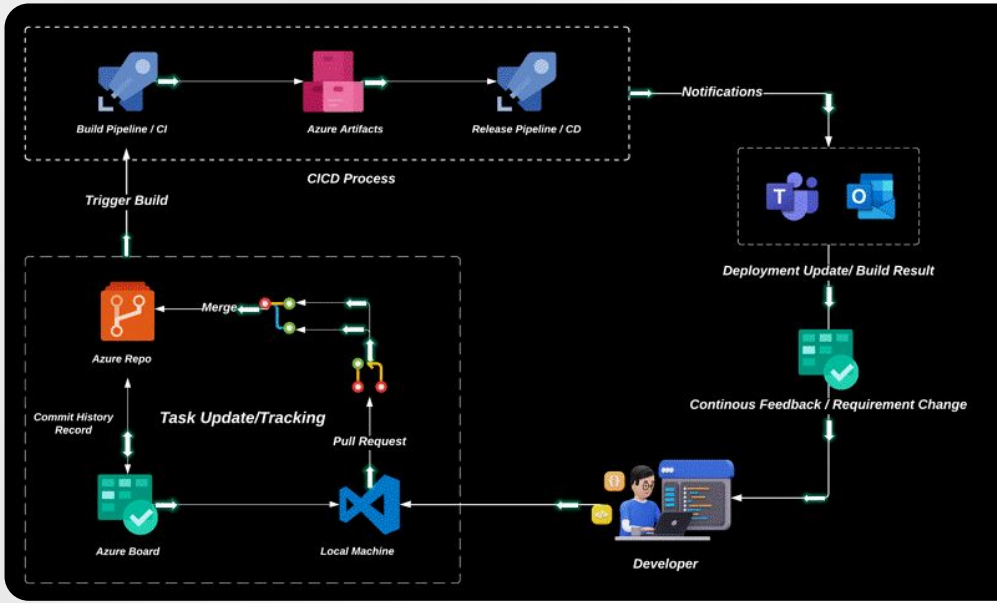
Drift from BoB to DevOps Platform

Market
best of breed have been merging and acquiring each other for years.

- Automation: CI/CD
- Application Portfolio Management
- Application Performance Management
- Monitoring & Alerts
- Resource Optimisation

50% Enterprises will abandon BoB for DevOps Platforms



Skills that are Crucial

How we're investing in skills: AI Engineering

GenAI Upskill Programme

Multiple Learning Paths
Developer | Data | DevOps | QA Automation

Topics
Fundamentals | Neural Networks | LLMs | RAG | GraphDB | Use Cases | Services

Stats
Duration: 1-2 Months
Effort: 18 Days
Learning: Online Training & Mentoring with Snr Engineer

Developer Path: Assignments List

- Chatbot Implementation with RAG
- Full-Stack Web Application with GenAI
- GenAI processing in the backend API
- GenAI-Based Code Assistant
- Internal Knowledge Base with Search Functionality
- Employee Directory with AI-Based Matching
- Project Management Dashboard
- Corporate Communication Platform
- Expense Tracking System
- Employee Feedback and Survey Tool
- Automated Report Generator
- Internal Document Workflow System
- Corporate Learning Management System (LMS)
- Corporate Compliance and Policy Checker
- Interactive Visualization Tool
- Image Processing with GenAI
- GenAI-Driven Recommendation System
- Mobile App with GenAI Features
- Voice-Activated Virtual Assistant

Staying Current

How you should invest your personal development time

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Pay Attention

- Industry is moving fast
- Multiple on-demand formats

Training Options

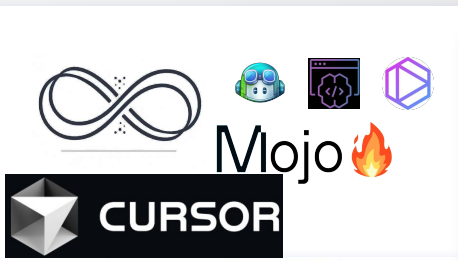
- Universities
- Online / On Demand

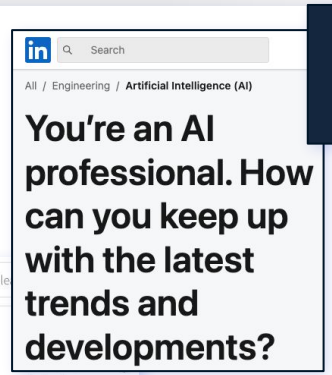
Experiment

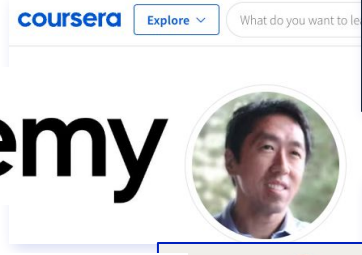
- Play

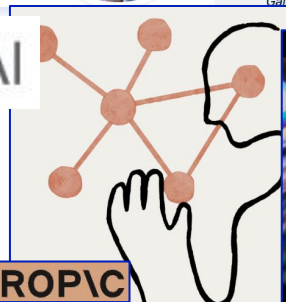
Vendors

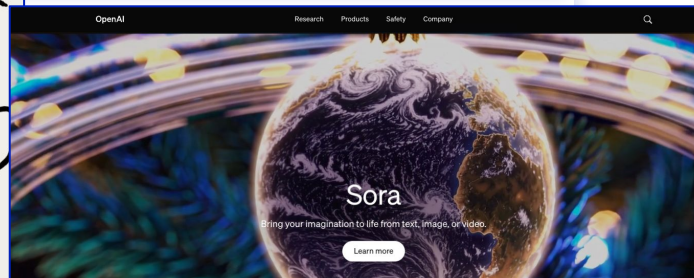
- Training
- News











In Summary

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2025 Trends

- AI will be embedded in everything (eventually), there's lots to do!
- AI Development Ethics & Regulation
- AI Assisted Development
- Agentic AI

Takeaway

- Take the time to modernise your skills: training
- Pay attention to the industry: it's moving very quickly, don't get left behind
- Continuous learning is critical
- Adapt to new ways of working
- Work at the forefront of adoption: make sure you are working in the right industries, with the right companies / clients
- Access to training & practical experience working with leading technology providers in the field
- Collaborate & learn from working with the best and most experienced people in the field: take your place among them!
- Join us and we can help keep you up to date

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Any questions?

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Share your feedback!

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Join our team

Thank you!