THE AI STACK

- 1. Al powered applications sold outside the stack
- 2. Al models
 - a. Repositories for the models
- 3. Cloud computing host platforms
- 4. Hardware
 - a. Semiconductors
 - b. Networking

CORE NEEDS (IN NO ORDER)

- 1. Copper
- 2. SILICON.... AMD, AMAT, ASML, TSM, NVDA, INTC
- 3. Electrical power. LOCAL, electrification of CO2 (GEV)
- 4. Data storage
- 5. Actual data
- 6. **Transmission**: DARK FIBER (LPTH)... Dark fiber is excess network fiber that was installed by network providers but is not turned on, or "lit."
 - a. Plastic or glass fiber (GLW)

THE STACK

- 1. Applications
 - a. Chapt-GPT
 - b. Jasper
 - c. Github (MSFT)
 - d. Midjourney
 - e. Bing Chat
- 2. HuB MODELS
 - a. Hugging face
- 3. Closed Models
 - a. GPT-4
- 4. Open source models
 - a. OPENAI (SEE ARTICLE)
- 5. HARDWARE
 - a. NVDA, INTC, IBM, GOOGL, AAPL (MAC BOOKS)
- 6. SOFTWARE
 - a. OPENAI, INTC, IBM, NVDA, MSFT, CDNS (chip design)

- 7. INFRASTRUCTURE
 - a. Cloud Computing
 - i. AAPL. MSFT, AMZN
 - b. HARDWARE
 - i. NVDA, DELL, ANET
- 8. CHIP FABRICATION
 - a. TSM, AMD, INTC,
- 9. DATA STORAGE
 - a. SMCI SAP INTC, NVDA, NTAP, IBM, AWS, PURE STORAGE (PURE), HPE, MU, DELL
- 10. DATA CENTERS
 - a. GOOGL, META, AMZN, SYNA, CORNING (GLW)
 - b. ANET (DESIGNS DATA CENTERS)
 - c. UiPATH (Robotics) PATH

NEED DATA

In their frantic hunt for data to train powerful AI systems, tech giants like OpenAI have harvested almost every last bit of web content available. And they warn that high-quality data (Wikipedia entries, scientific papers, etc.) could completely <u>run out</u> in the next two years, the WSJ reported.