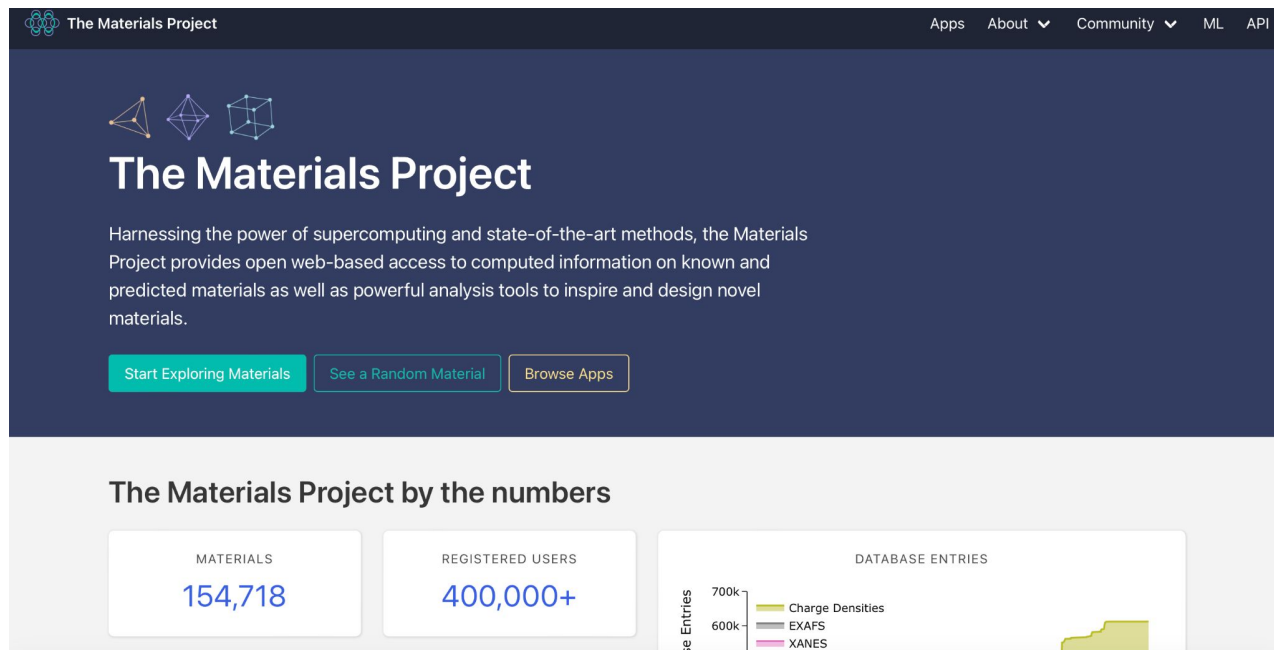Square

Material

Material is a custom gpt that helps people working in material science

lab
lab
ai

Material custom GPT

For advancing in material science and for educational purpose

- We are using Material project api which has information regarding vast amount of experimentally validated molecules and usually used for research

Technology & Capabilities

- API Key Authentication for secure access
- Material Data Retrieval using material IDs
- CIF File Downloading for detailed crystallographic data
- 2D Visualization of Material Structures

Technologies Behind the API

- FastAPI for building the web API
- Libraries like Pymatgen, Pymatviz, and Matplotlib for data handling and visualization
- Render for deploying
- Custom GPT

Applications and Target Audience

Enhancing Scientific Research

- Use in academic and industrial research for quick data access
- Application in material analysis and innovation
- Case studies or examples (if available)

Educational Tool for Materials Science

- Use in classrooms for teaching complex material structures
- Interactive learning through visualization
- Benefits for students in understanding abstract concepts

Thank You