

Helping people understand Protein LLMs with BioAI

BioAI

Team Leader: Steven Ness

- Founder of doi.bio: Mission to integrate biology and AI
- Extensive background in machine learning and user experience
- Previous experience at Google Research
- Expertise in structural biochemistry

The Emergence of Protein LLMs

- Intersection of AI and structural biology
- Alphafold2 revolutionizing protein structure prediction
- ESM3: Next-generation Protein LLM from Evolutionary Scale Modelling
- EvolutionaryScale.ai \$168 million in VC funding

Complexities in Protein Research

- Growing interest in protein research
- High complexity combining structural biology and AI
- Lack of accessible educational resources
- BioAI: simplifying complex scientific literature

Focusing on ESM3

- Analyzing the 68-page ESM3 paper
- Focus on designing Green Fluorescent Proteins (GFPs)
- Methodology covers DNA synthesis and fluorescence testing
- Educational outreach utilizing extracted content

Leveraging Falcon AI

- Extraction of key facts from the ESM3 paper
- Development of tailored educational materials
- Script creation for expert and non-expert audiences
- High adaptability for diverse content formats

User-Friendly Interaction with BioAI

- Demonstration of BioAI's videos
- Engaging with complex content simplified

Analyzing Market Demand

- Rapidly growing intersection of biotech and AI
- Increased need for intuitive research tools
- BioAI's strategic fit for academic and industrial markets
- Opportunity for increased user engagement and education

Exploring Revenue Streams

- Subscription model for individuals and institutions
- Premium features for advanced analysis
- Potential partnerships with educational institutions
- Collaboration with biotech firms for joint ventures

Competitor Landscape

- Existing platforms lacking user-friendly interfaces
- BioAI's simplicity and effectiveness in conveying research
- Unique ability to summarize complex research papers
- Focus on large language models in the biological context

Expanding Horizons

- Scalability of BioAI for diverse scientific fields
- Opportunities in other domains beyond proteins
- Partnerships with educational platforms for greater outreach
- Vision for a platform that evolves with the scientific community

Conclusion

- Addressing the gap in understanding LLM research
- Strong business and market potential
- Enhancing interactions with biological literature
- Thank you for engaging with the BioAI vision!

