CASE STUDY

Accelerating Healthcare AI by 1000x

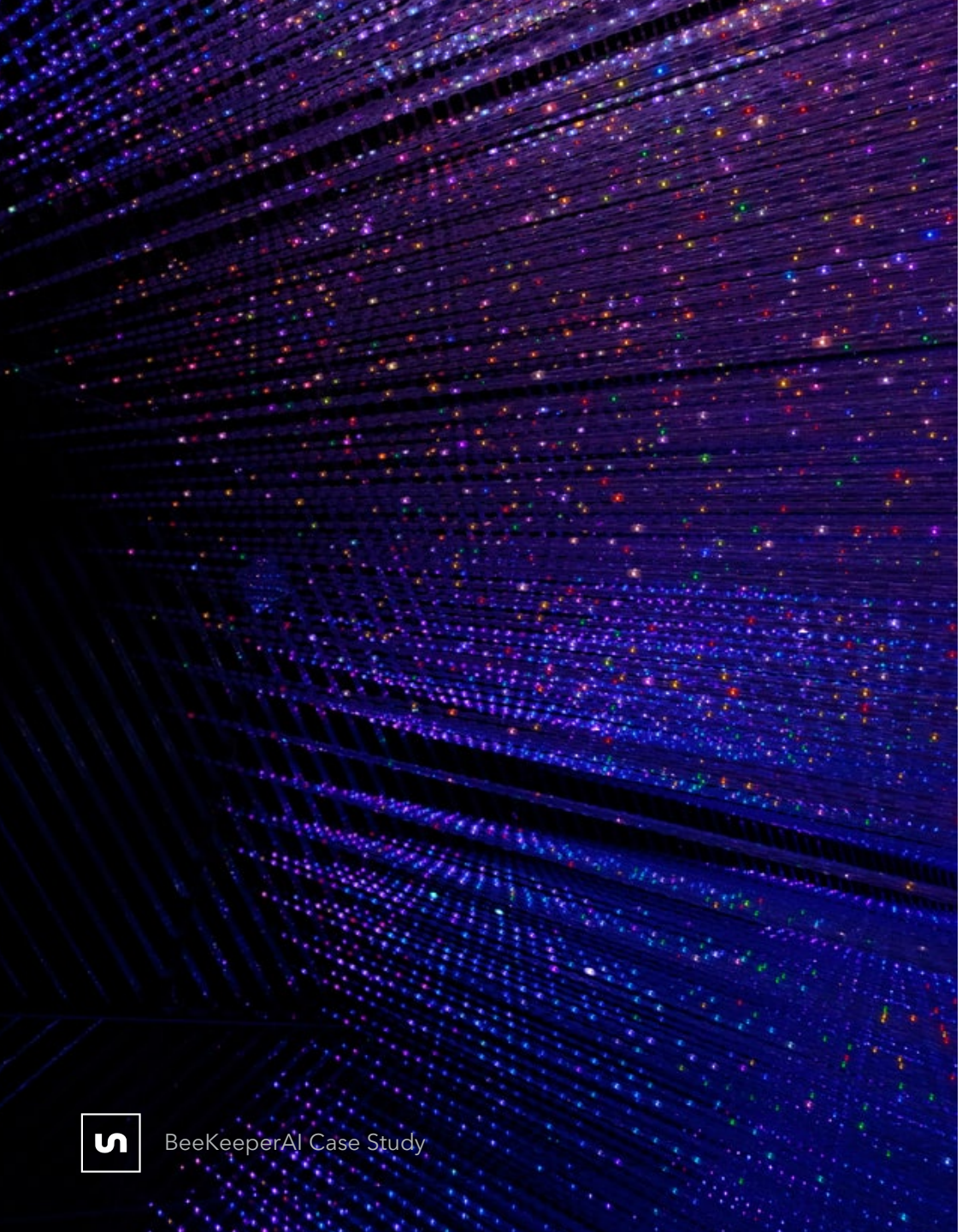
UCSF'S SECURE ACCESS TO HEALTHCARE DATA FOR AI ALGORITHM DEVELOPMENT

In today's environment it takes approximately 3 years and $5M for an algorithm to achieve generalizability and be viable for FDA approval. Healthcare AI development is a slow process that is burdened by finding realistic data to train on and facilitating secure access to that data that won't compromise patient safety.

Envisioning the future of Healthcare AI

HUMAN-CENTERED EXPERIENCE AND A TECHNICALLY SOUND SOLUTION

- BeeKeeperAI brings confidential computing in the cloud to enable secure collaboration between algorithm developers and healthcare data sets. AI will revolutionize healthcare as we know it – but in order for this to happen we need more developers training *de novo* algorithms more often.
- Launch worked with UCSF CDHI to lay the foundational system architecture and design key elements of the user experience in order to bring it to market. This included
  - Product research with key user groups
  - Clickable prototype and product roadmapping
  - Demonstrate key architecture solutions



Product Research

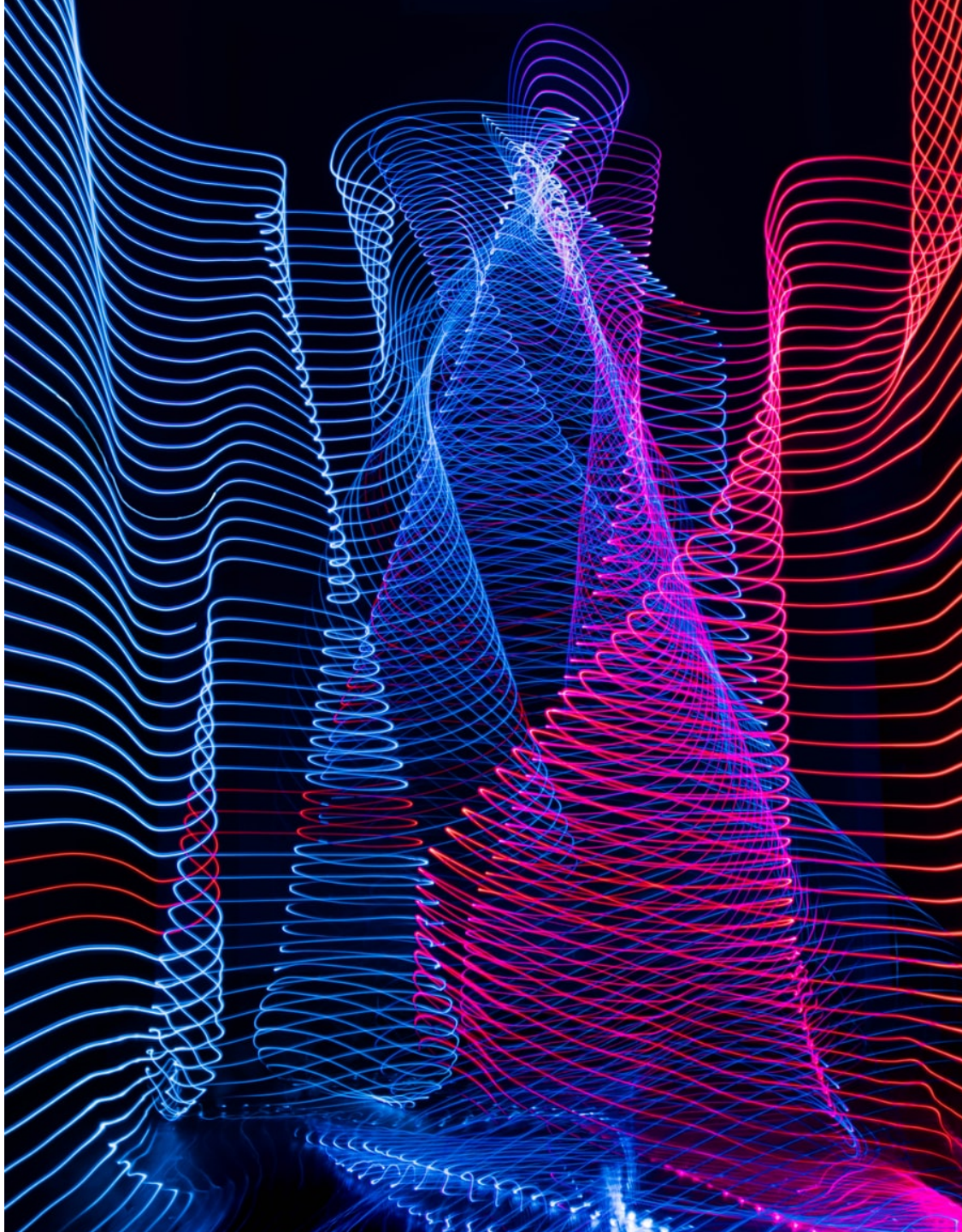
INSIGHTS FROM REAL WORLD EXPERIENCES

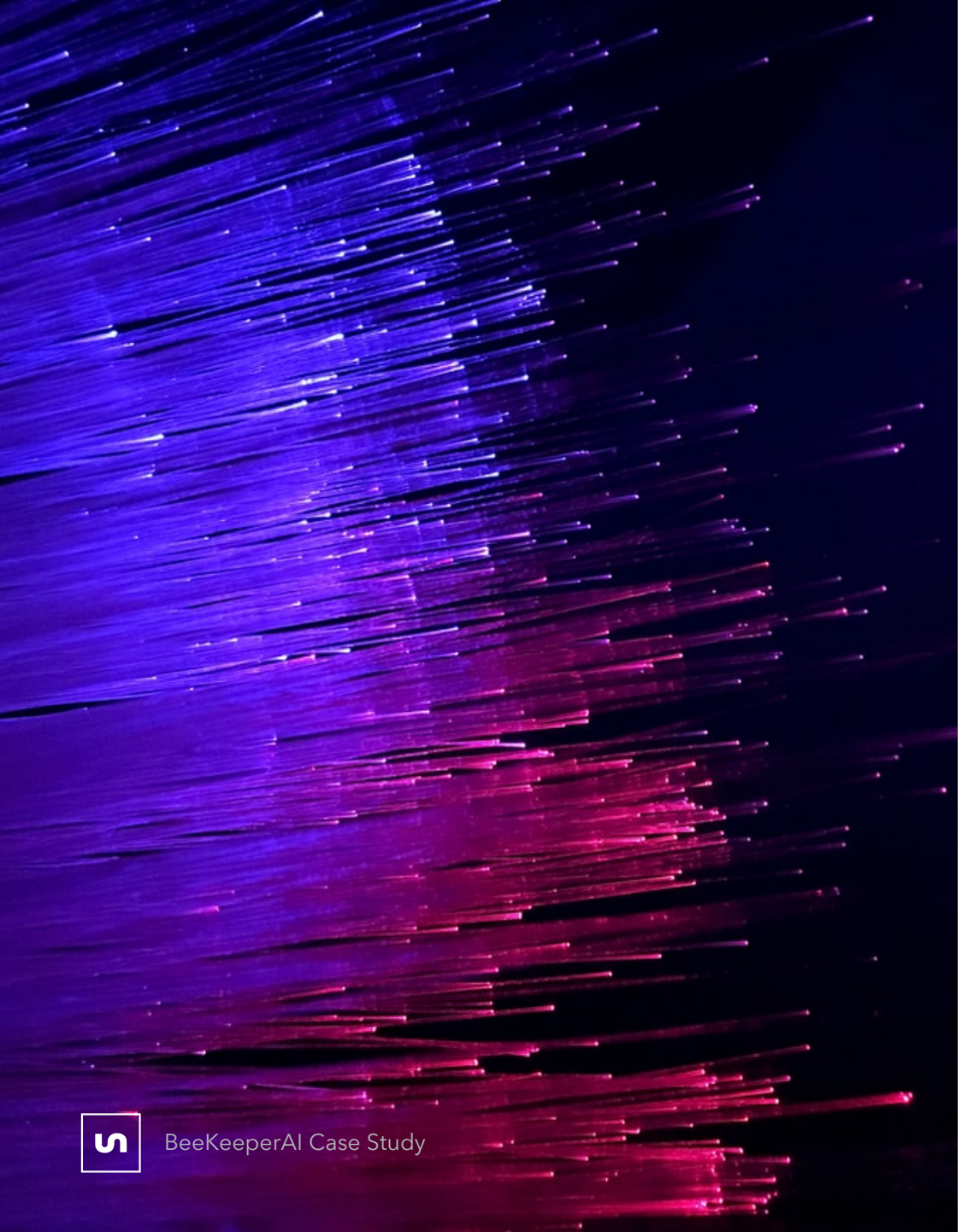
- Our client had a hunch based on their experience that the value proposition of their product was sound, but needed further validation to help refine the product offering and their pitch.
- We conducted 15 one-hour long interviews with key subject matter experts and user groups.
- We synthesized our findings and distilled our learnings into artifacts to guide our design and architecture phases.
  - Key Insights – takeaways and learnings from research
  - Design Guidelines – what user-centered concepts will guide the product's development?

System Architecture

SETTING THE SYSTEM UP FOR SUCCESS

- Moving from high level concepts to specific implementation details, there were foundational pieces of the system that needed to be systematically evaluated and designed.
- We worked to identify core platform needs for functionality and identify solutions for these. This produced key architectural briefs on components of the system such as sequence diagrams, entity relationships, and data security maps.
- Tackling some of the toughest problems of the system first and working through prototypes, we used engineering spikes to unblock the team and test our assumptions about the system.





Clickable Prototype

ENVISIONING A FUTURE EXPERIENCE

- Based on our research – we identified key features, user needs, and system requirements. These set the foundation for the product and helped us define the information architecture and service blueprint.
- We then created a clickable prototype that follows one key user story. It answers:
  - What will the experience be like?
  - What features and functions will the system have?
  - How will it organize information?
- The prototype embodies a product roadmap and casts a vision for BeeKeeperAI as a service 2-3 years in the future.