

CASE STUDY

PROVIDING EXPERT-LEVEL, PROJECT-BASED CONSULTING IN COMPUTATIONAL SCIENCES TO HELP INTEGRATE AI/ML FRAMEWORKS THAT ACCELERATE DRUG DISCOVERY AND DEVELOPMENT FOR A GLOBAL BIOTECHNOLOGY LEADER.



A Fortune 500 biotechnology leader needed to rapidly scale their AI and machine learning capabilities to accelerate their drug discovery & development initiatives. The highly specialized and technical nature of the required skillsets made it difficult to source qualified candidates quickly enough to meet demanding project timelines within Computational Sciences.

THE CHALLENGE

What were the problems?

01 Lack of Specialized Talent for AI/ML Projects

The client needed immediate access to highly specialized machine learning and artificial intelligence experts who could work with complex and niche models. However, the hiring managers had limited time to dedicate to the hiring process due to project demands.

02 Urgent Need to Scale AI and ML Capabilities

With the increase of artificial intelligence and machine learning initiatives, the client was under significant pressure to expand their resources in a short timeframe.

03 Challenges in Launching New AI and ML Initiatives Efficiently

New projects were being delayed due to a shortage of skilled professionals. The client required experienced engineers and scientists who could quickly launch, improve, and support artificial intelligence and machine learning models without the extended onboarding period of traditional hiring.

04 Inability to Meet Project Deadlines

Project timelines were slipping because of limited access to qualified talent and the complexity involved in deploying artificial intelligence solutions. The client needed flexible and immediate support to prevent delays and stay aligned with their project timelines.



THE SOLUTION



01 Rapid Access to Specialized AI/ML Talent

Leveraging a proactive pipeline of pre-vetted candidates with AI/ML expertise & specific domain knowledge, we delivered well-qualified experts within 24 hours. This ensured the client had immediate access to niche talent capable of integrating & analyzing complex datasets across various AI/ML projects.

02 Scalable Talent Strategy for AI/ML Growth

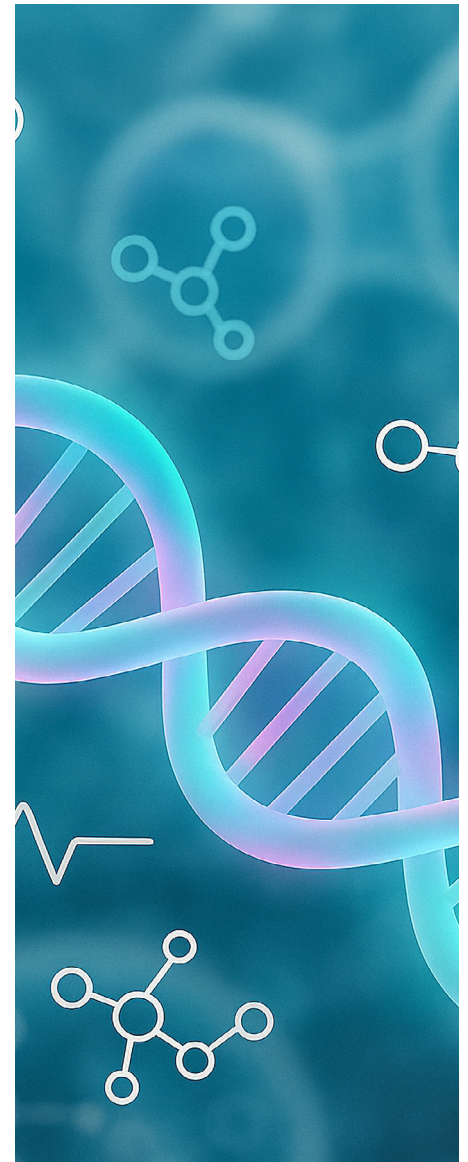
Our proactive pipelining approach allowed us to present highly qualified candidates quickly in response to the client's growing demand. By maintaining a steady bench of top-tier AI/ML professionals, we helped the client ramp up multiple projects without compromising quality or speed.

03 Market-Aligned Expertise

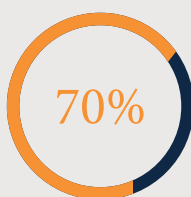
We continuously monitor emerging AI/ML trends and evolving skillsets, enabling us to source talent with highly relevant, cutting-edge expertise. This ensured the client's new initiatives were supported by professionals familiar with the latest technologies and best practices.

04 Collaborative and Targeted Recruitment Approach

We worked hand-in-hand with the client's project manager to determine technical and cultural fit for each role. This allowed us to deliver candidates who not only met technical requirements but also aligned with the client's team dynamics and communication style.



THE RESULTS



Successfully filled 70% of highly specialized roles, directly supporting the client's evolving project-based demands across AI, ML, and computational biology.

Delivered Qualified Candidates Within 24 Hours

Leveraging an established talent pipeline, we consistently provided top-tier candidates within 24 hours of receiving requisitions, ensuring project timelines were met.

Consistently Met High-Volume Candidate Requests

In response to urgent client needs, Astrix delivered a minimum of five qualified candidates per role within 72 hours accelerating the client's ability to evaluate and onboard talent quickly.

Expanded Partnership Through Quality Execution

Due to the exceptional quality and consistency of our placements, the client engaged Astrix to support additional teams across computational sciences, bioinformatics, AI, and ML functions broadening our impact and value within the organization.

Machine Learning Engineer

Astrix deployed engineers with advanced proficiency across both foundational and cutting-edge ML tools and frameworks, including:

- ✔ Languages & Tools: Python, C++, Java, Scala, Git (Version Control).
 - ✔ Deep Learning Frameworks: TensorFlow, PyTorch.
 - ✔ Model Architectures: MLP, CNN, RNN, Transformer-based models.
 - ✔ Hardware Acceleration: GPU Programming (CUDA).
 - ✔ Natural Language Processing: NLP Libraries (spaCy, NLTK, Hugging Face), Large Language Models (LLMs).
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AI/ML Scientist

Specialized scientists were sourced with expertise in building and scaling modern AI systems

- ✔ Core Tools & Libraries: Python, LangGraph, LangChain, and Requests.
 - ✔ AI Architectures & Techniques: AI Agents, Retrieval-Augmented Generation (RAG), Fine-tuning Methods (SFT, RLHF, RL).
 - ✔ Operational Expertise: MLOps, Model Deployment, and Pipeline Automation.
 - ✔ LLM Applications: Experience integrating and customizing Large Language Models in production environments
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Computational Biologist

Astrix provided computational biologists with specialized experience in advanced biological data analysis and machine learning techniques, including:

- ✔ Languages & Tools: Python, R, Git, Bioconductor
 - ✔ Single-Cell & Spatial Analysis: scRNA-seq, Spatial Transcriptomics, scVI
 - ✔ Machine Learning Techniques: Autoencoders, Neural Networks, Transformer-based Models
 - ✔ Machine Learning Techniques: Autoencoders, Neural Networks, Transformer-based Models
 - ✔ Frameworks & Infrastructure: PyTorch, High-Performance Computing (HPC)
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Bioinformatics Scientist

Astrix deployed bioinformatics scientists skilled in sequencing analysis and scalable ML workflows, with expertise in:

- ✔ Languages & Tools: Python, Shell Scripting, Git
- ✔ Sequencing Technologies: RNA-seq, Whole Exome Sequencing (WES)
- ✔ Machine Learning Techniques: State-of-the-Art ML Models, Transformer-based Architectures
- ✔ Frameworks & Infrastructure: PyTorch, High-Performance Computing (HPC)