Success Story Templates

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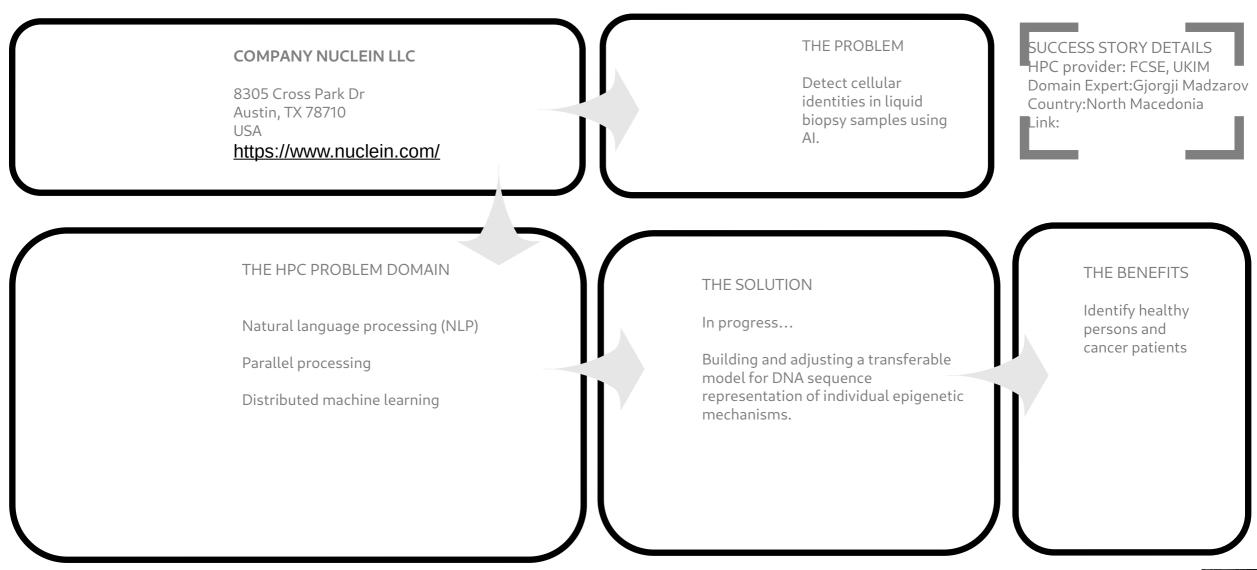
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Industrial HPC Course



SUCCESS STORY IN BIOINFORMATICS





SUCCESS STORY IN INDUSTRIAL DOMAIN BIOINFORMATICS

THE PROBLEM

Develop an AI model(s) from high DNA data volumes that will be able to detect cellular identities in liquid biopsy samples based on reference molecular fingerprints from healthy and diseased states.

THE HPC PROBLEM DOMAIN

Natural language processing (NLP) Parallel processing Distributed machine learning

THE SOLUTION

In progress...

Building a transferable model for DNA sequence representation of individual epigenetic mechanisms Adjusting the transferable model for multiple downstream tasks such as prediction of cellular identities, prediction of functional genomic elements.

THE BENEFITS

Understanding the language of non-coding and coding DNA with their underlying epigenomic context.

Discrimination between reference epigenomic fingerprints in blood from healthy persons and cancer patients.

