

HW5 Part 1

Tech Layoffs Predictive Analysis: Leveraging Machine Learning for Industry Insights

In an ever-evolving tech landscape, job security is a growing concern. Tech Layoffs Predictive Analysis uses advanced machine learning algorithms to forecast potential layoffs in the technology sector. Developed with Jupyter Notebook, this project harnesses historical data from tech companies, including financial reports and employment trends, to predict future layoffs with remarkable accuracy. By addressing challenges such as data normalization, feature selection, and model optimization, it delivers insightful analysis that can inform stakeholders strategic decisions. Key features include a user-friendly interface for exploring predictions and robust visualization tools that highlight critical insights. This project not only addresses professionals navigating career uncertainties but also empowers companies to make informed operational adjustments.

Machine Learning Data Analysis Jupyter Notebook Predictive Modeling Tech Industry Insights

Contributor(s): Status: Active License: MIT

[View on GitHub](#)



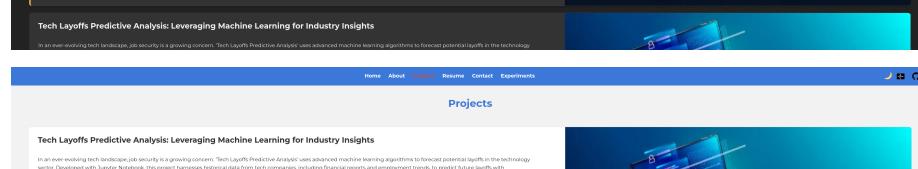
Advanced Path-Planning Algorithm Refinement

The Advanced Path-Planning Algorithm Refinement project focuses on improving a navigation algorithm to deliver enhanced performance and stability in dynamic environments. Developed with Python, this project explores the evolution of one of the most consequential techniques to optimize route efficiency, reduce travel time overhead, and increase stability in changing conditions. The primary challenge was balancing precision with speed, which was addressed through innovative data structures and parallel processing strategies. This project also emphasizes robust testing frameworks to ensure stability across diverse scenarios, thereby significantly minimizing errors in navigation tasks. Key features include real-time obstacle detection, dynamic route re-planning, and seamless integration with real-world mapping services. While showcasing cutting-edge technology, this project serves as a testament to innovation and teamwork.

Path Planning Python Algorithm Optimization Real-Time Processing Dynamic Routing

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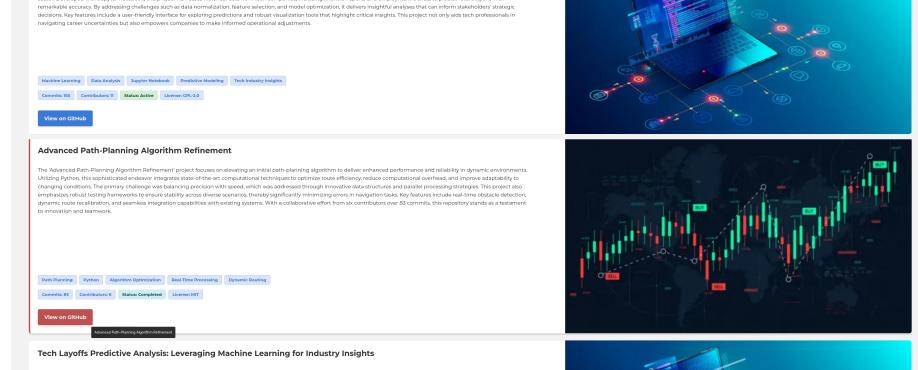
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LINKS:

Original website:

<https://katul-portfolio3.netlify.app/>

Project cards used:

<https://katul-portfolio3.netlify.app/projects.html>

Github repo:

<https://github.com/katulevskiy/cse134-hw5>