Convex Optimization Project Proposal

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Portfolio Optimization is the process of selecting the best portfolio, out of the set of all portfolios being contemplated,according to some objective. The objective typically maximizes factors such as expected return and minimizes cost like financial risks.

In finance, the Markowitz model-put forward by Harry Markowitz in 1952-is a portfolio optimization model, it assists in the selection of the most efficient portfolio by analyzing various possible portfolios of the given securities.

Goal of this project is to solve a convex optimization problem which is trying to maximize the expected return of a portfolio subject to a specific risk aversion parameter defined by a customer, in order to erect the most efficient portfolio among all probable portfolios.