

DURGESH PATEL

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EDUCATION

Chandigarh University

B.E (Bachelor Of Engineering) Computer Science *GPA: 3.62*

Chandigarh, India

July 2021 - May 2025

EXPERIENCE

WorldQuant

Research Consultant

Old Greenwich, Connecticut, US

November 2022 - March 2023

- Made strategy based on Vanilla gradient policy for stock market on china market to predict the opening and closing of a particular stock.
- Made strategy based on regression model to predict the Sharpe of a particular stock on next day to given data

GSOC (Google summer of code 2022)

Open Source Contributor at ECONARK Organisation

April 2022 - October 2022

- Implementation of Auclert, Ronglie, and Straub's method of solving heterogeneous agent macroeconomic models
- In this project we would have to integrate Auclert, Ronglie and Straub's paper into Toolkit
- Standardizing and improving the tools for generating approximating Markov transition matrices to represent the dynamic evolution of populations of agents
- Creating a tool that would take a high-level description of the linearization of the model in response to an MIT shock

Indian Institute of Science

Research Intern

Bangalore, India

July 2022 - July 2022

- Proposed a set of multiagent heterogeneous agents (HAMMER) who master multi-level coordination through messaging, thereby enhancing the capabilities of state-of-the-art reinforcement learning algorithms

SKILLS

Programming Language: PYTHON, Machine Learning Libraries- Tensorflow, Pytorch, Transformer, Pandas, Matplotlib, AWS, Javascript, React Native and also many frontend and Backend tools
Mathematical Courses: Probability and Statistics, Linear Algebra, Calculus (Univariate, Multivariate, Differential), C
Technical Courses: Data Structure, Design and Analysis of algorithms, Machine Learning(Supervised Learning), I

PROJECTS

Stock Market Prediction App Python, ML libraries : Skit Learn, Tensorflow, Pytorch, Numpy, Pandas, Matplotlib, AWS, Javascript, React Native and also many frontend and Backend tools

<https://github.com/pat749/Stock-market-prediction-app>

The project aims to provide retail investors with a third-party investment mobile application to navigate through the stock market. This is achieved through the use of machine learning and mobile web technologies. Several stock price prediction approaches and models are developed including dense, feedforward neural networks, recurrent neural networks, simple linear regressions, and linear interpolations. Model architectures and hyperparameters are optimized and automatically searched by evolution algorithm.

Imessage Clone React Native

<https://github.com/pat749/-imessage->

Dynamic Hand Gesture recognition system Python And ML Libraries

Using gestures to control PC, drive a RC car

FMA-DQN Python And ML libraries

a novel formulation to perform federated, distributed learning for Deep RL algorithms.

Evolutionary Computing Python And ML libraries

<https://nishantkr18.github.io/FlappyBirdOnJavascript/>

On-browser AI playing the Flappy bird game, using Javascript

AWARDS

Global Alphathon By World Quant

Got 33 rank out of 10000 team in Global Alphathon and got under 10 rank in India

OCTOBER 2022

GSOC 2022

Selected among 1199 students, out of 51,244 students from 178 countries registered for the prestigious Google Summer of Code Program, 2020.