SHUMIN AN

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https://coconut00.github.io

EDUCATION

Beijing Jiaotong University, Beijing   *Sept. 2016 - June. 2020*
BSc in Computer Science   Overall GPA: 3.65
Core Courses: Data Structure, Algorithm, Operating System, Probability Theory and Mathematical
Statistics, Linear Algebra, Discrete Math

New York University, NYC   *Jan. 2021 - Present*
MSc in Computer Engineering   Overall GPA: 3.8
Core Courses: Internet Architecture & Protocols, Data Center and Cloud Computing, Computing
Systems Architecture

PROJECTS

Analysis of Early-Exit Neural Network   *Mar. 2019 - June. 2019*
Supervised by Prof. Hongzhi Zhao

- Analyzed the feasibility and performance of Early-Exit CNN for reducing the computational cost
  during image classification inference. Developed tools for showing the memory cost, FLOPs and
  training time of each layer.

- Proposed method of placing network exits based on the percentage of FLOPs cost, which helps
  reduce the inference cost and preserve the accuracy compared with BranchyNet.

Real-time Visualization of Urban Planning   *Jun. 2018 - Dec. 2018*
Supervised by Prof. Shuang Ren

- Implemented the visualization framework that discovers regions of different functions, such as
  educational areas and business districts, in a city using both human mobility among regions and
  points of interests located in a region.

- Analyzed the features given by the combination of different functions in each region, like human
  consuming patterns, traffic condition, etc .

User Portrait from E-commerce Website   *Oct. 2017 - Dec. 2017*
Supervised by Prof. Shuang Ren

- Implemented multi-thread web crawler for mining data on e-commerce website, including infor-
  mation of products and users.

- Analyzed the characteristic of website users based on k-means algorithm.

WORK EXPERIENCE

YearOne Investment, Beijing   *Apr. 2019 - Present*
Quant Researcher

- Developed CTA and Marketing Timing strategies for Index Futures, Options and Commodity
  Futures.

- Developed tools computing implied-volatility for callput options based on Black-Scholes Model,
  used interpolation method for analyzing and showing the severity of volatility deviation and prac-
  ticed arbitrage.

- Used Monte Carlo method to simulate the performance of trading strategies, generated confidence level and tail risk based on the simulation, provided evaluation on feasibility of portfolio optimization.

AWARDS

- The Scholarship of Beijing Jiaotong University   *2016-2020*