**Yingchun Ma** InternshipEmail mayingchun321@outlook.com

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Education

UESTC(985，211) 2016.9 — 2020.6

Bachelor of Software Engineering GPA 3.90

three times Outstanding Student Scholarship

University of California, Berkeley 2019.1 — 2019.8

EECS Exchange Student GPA 3.93

Rice University 2021.1 — 2021.12

Master of Computer Science

Skills

Operating System Basics, Computer Networks Basics, Data Structures and Algorithm, Machine Learning Basics (Deep Learning applications and tools)

Python，C，Java Basics

Projects

**Book Recommender** <https://github.com/myccccccc/RecoBook> 2020.2 — 2020.4

Using one or more features of the books, or the rating matrix, to predict the user's rating on unread books, and recommend books to users based on the predicted rating, use MSE and nDCG to evaluate the model

1. Naïve Bayes Model: use book description as input and use sklearn.naive\_bayes to implement
2. Content-based filtering: compute TF-iDF vector for every book and compute cosine similarity between books
3. Collaborative filtering: use Funk-SVD and SGD to decompose the scoring matrix into two lower-rank matrices
4. Neural Networks: Use the user matrix obtained by ​Matrix Factorization and books’ tags to build a neural network model using tensorflow.keras

**Pintos** <https://github.com/myccccccc/Pintos> 2019.5 — 2019.8

Pintos is a simple operating system that runs on a X86 CPU system simulator. It supports kernel threads, loading and running user programs, and a file system. As a course project. I strengthened its support in all three areas.

1. Solved timer\_sleep busy waiting，implement priority donation for lock
2. Implement syscall\_handler and system calls corresponding to exit, wait and exec
3. Implement a fully-associative, write-back cache, implement an indexed inode structure with direct, indirect, and doubly-indirect pointers to support extending files

**Chinese Chat-bot** 2018.9 — 2018.12

Build the Seq2Seq model using tensorflow.keras, train and test the model on 1200 thousands Q&A set, using pandas and seaborn to do data preprocessing