ZHIYING (ALAN) QIAN

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SUMMARY

- Current Master student of Computer Science offering a solid foundation in software engineering and programming principles.
- Experienced in object-oriented programming, frontend and backend development, with quick learning abilities and successful working in both team and self-directed settings.

EDUCATION

- UNIVERSITY OF CALIFORNIA, IRVINE, Irvine, California
  Master of Computer Science, Expected December 2019
  Relevant Courses: Algorithms, Artificial Intelligence, Scientific Computing
- THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY (HKUST), Hong Kong, China
  Master of Science in Engineering Enterprise Management, 2017-2018, GPA: 4.1/4.3
  Relevant Courses: Deep Learning, Computer Organization, Probability and Statistics, Objected Orientated Programming in Java
- FUDAN UNIVERSITY (FDU), Shanghai, China
  B.Eng., Macromolecular Materials and Engineering, 2013-2017, GPA: 3.3/4.0
  Relevant Coursers: Python Programming, Data Structures, Databases, Linear Algebra, Discrete Mathematics, C Programming

PROJECTS

TicketPlus: an event search and ticket recommendation website | Code | http://18.144.71.36/Jupiter/

- Developed an interactive web page using AJAX technology (HTML, CSS and JavaScript) for users to search ticket information.
- Created Java servlets based on Apache Tomcat, with RESTful APIs to handle HTTP requests and send responses.
- Built a relational database (MySQL) with CRUD operations to offer services to callers efficiently.
- Implemented a TicketMaster API to capture real-time ticket information from the website and designed a content-based recommendation algorithm based on categories to make personalized business recommendation.
- Deployed server side to Amazon EC2.

AmazingI: An Intelligent Minesweeper Agent | Code

- Designed the framework of the Minesweeper game using Java.
- Applied Constraint Satisfaction Problem algorithm and heuristic estimation to the minesweeper agent.
- Succeeded in completing 90% in beginner world (8x8 with 10 mines), 72% in intermediate world (16x16 with 40 mines) and 22% in expert world (16x30 with 99 mines).

Computer simulation on the crystallization of polymer dendritic crystal based on the phase-field model | Code

- Studied and proposed the phase-field model on the crystallization process of polymer dendritic crystals.
- Solved partial differential equations with Finite Difference Method (FDM).
- Used MATLAB to simulate the crystallization process in polymer films, which accorded well with real experiment results.

WORK EXPERIENCE

Research Assistant, Department of Industrial Engineering & Decision Analytics, HKUST, Hong Kong, China, 9/2017 – 12/2017
A DNN model with weighted loss function to predict malicious claims for a logistics company

- Processed mass logistics information data of 30GB, cleaned and quantified the 10 million order dataset to speed up calculation.
- Constructed a deep neural network and designed a loss function with a weight matrix to handle the imbalanced data.
- Predicted complaints with a precision of 5% and recall of 40% in a dataset with only 0.2% positive sample rate.
- Reduced the company's claim expense by 40% with a relatively low cost.

TECHNOLOGY SKILLS

Programming Languages: Java, Python, JavaScript, MATLAB, C
Web Technologies/Databases/Build: HTML5, CSS, MySQL, NodeJS, Tomcat, Git