Zhansong Li
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github.com/hvariant
bitbucket.org/hvariant

latest version:

Education

- **Australian National University** — Canberra, Australia
  Master of Computing — *Feb. 2016 – now*
  - GPA: 6.25/7.0
  - Key Courses: Introduction to Statistical Machine Learning, Managing Software Projects in a System Context, Communication for Computing Professionals II, Operating Systems Implementation
  - Currently Taking: Deep Learning in Computer Vision
- **Sun Yat-sen University** — Guangzhou, China
  Bachelor of Science in Computer Science and Technology — *Sep. 2011 – Jul. 2015*
  - GPA: 3.7/4.0
  - Relevant Courses in: Computer Architecture, Principles of Computer Organization, Data Structures, Algorithms Design and Analysis

Experience

- **ANU CS individual Project** — Canberra, Australia
  Project Student Supervised by Prof. Steve Blackburn — *Jul. 2017 – Oct. 2017*
  - Developing concurrent reference counting garbage collector
- **Udacity Deep Learning Nanodegree Foundation** — Canberra, Australia
  Student — *Jun. 2017 – Aug. 2017*
  - Developed deep learning projects for image classification (CNN) and generation of tv script (RNN) and human faces (DCGAN)
- **ANU TechLauncher** — Canberra, Australia
  Member of Carbon Reduction Optimzer team — *Mar. 2017 – Oct. 2017*
  - Developing machine learning solutions for automated building energy consumption breakdown estimation
  - Working with Canberra start-up Wollemi Systems
- **Sun Yat-sen University** — Guangzhou, China
  Research Intern at Logic Intelligence and Computation Group — *2014 – 2015*
  - Developed general game playing agent 'LICAgent'
  - Conducted research on combinatorial games, general game playing, and Monte Carlo Tree Search
- **Flamingo Inc** — Guangzhou, China
  Software Developer — *2012 – 2013*
  - Developed back-end code using PHP+MySQL for iOS game 'Beautiful Life'
  - Developed Windows port of mobile game 'Fishing Joy' and added 4-player local co-op
  - Worked on Android port of popular iOS game 'MT Online'

Projects

Concurrent Garbage Collection:

- Concurrent reference counting garbage collector implementation in JikesRVM
- Based on a previous state-of-the-art collector RCImmix

Carbon Reduction Optimizer:

- Developed machine learning models for building energy breakdown estimation using scikit-learn
- Identified key performance indicating features using feature engineering and selection
- Resulting model can predict building energy breakdown by activity within reasonable margin of error (2.5% to 3%) using answers to a short survey

LICAgent:

- General Game Playing agent written in C++
- implemented MCTS algorithm for general game AI
- Finalist at IGGPC 2014

Fishing Joy Windows port:

- Various bugfixes to game code and cocos2d-x engine
- Implemented 4-player local coop on multi-touch screen

Beautiful Life:

- Designed the API for communication between game and back-end server
- Implemented back-end code using PHP & MySQL
- Created a website for marketing team to view detailed game analytics

Skills

Technical skills (experienced): C/C++, Python, Java, git, Linux/UNIX sysadmin, LaTeX, scikit-learn

Technical skills (familiar): Matlab, Android, HTML/CSS, MySQL, PHP

Languages: English (professional proficiency), Mandarin Chinese (native)

Publications

2014 Di Yang and Weigang Wu and **Zhansong Li** and Jiongyu Yu and Yong Li,

"PPMS: A Peer to Peer Metadata Management Strategy for Distributed File Systems",

In Network and Parallel Computing - 11th IFIP WG 10.3 International Conference, NPC 2014, Ilan, Taiwan, September 18-20, 2014. Proceedings, pp. 435-445, 2014.