

Wah Loon Keng

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EDUCATION

LAFAYETTE COLLEGE

BS IN MATHEMATICS

MINOR IN PHYSICS

Dec 2015 | Easton, PA

Cum. GPA: 3.83 / 4.0

LINKS

Github: [kengz](#)

LinkedIn: [theoriesinpractice](#)

Google Scholar: [Wah Loon Keng](#)

COURSEWORK

UNDERGRADUATE

Artificial Intelligence

Senior Project: Machine Learning

Theory of Computation

Software Engineering

Advanced Algorithms

Adv. Multivariable Calculus

Partial Differential Equations

Vector Spaces

Abstract Algebra

Topology

Real Analysis

Fixed & Mixed Effect Models

Probability

Advanced Quantum Theory

Advanced Classical Mechanics

Advanced Physics Lab

Electromagnetic Fields

Oscillatory & Wave Phenomena

SKILLS

PROGRAMMING

Proficient:

Python • Node.js • Ruby

Basic:

Java • C++ • SQL • Neo4J

R • Mathematica • HTML • CSS/Sass

LANGUAGE

Fluent:

English • Mandarin • Malay

Cantonese • Hokkien

EXPERIENCE

ELIGIBLE INC | SOFTWARE ENGINEER

March 2016 - present | Brooklyn, NY

- Started and built the company's data platform and pipeline automation.
- Created products with machine learning and search algorithms.

SINGAPORE-ETH SMART CITIES LAB | SOFTWARE ENGINEER

August 2015 - September 2015 | Singapore

- Traffic network optimization Java app for urban planning using graph theory.

FULCRUMTECH, LLC | SOFTWARE ENGINEER (PART TIME)

Oct 2014 - July 2015 | Easton, PA

- Data ETL and HTML/CSS templating for marketing email automation.

RESEARCH

LAFAYETTE COLLEGE | EXCEL UNDERGRADUATE RESEARCHER

Summer 2015 | Easton, PA

Vertex Cover - studied its NP-hard complexity using Measure and Conquer. Under **Prof Ge Xia**.

Summer 2013 | Easton, PA

Yao Graphs - proved the existence of shortest paths for Y-5, and its inexistence in YY-5. Published in SOCG'14. Under **Prof Ge Xia**.

PERIMETER INSTITUTE | STUDENT RESEARCHER

Summer 2014 | Waterloo, Canada

Quantum Foundations - explored quantum paradoxes in the C3 causal structure using quantum computation and information. Under **Matthew Pusey** and **Tobias Fritz**.

PROJECTS

SLM-Lab	A framework for Deep RL using Unity, OpenAI Gym, PyTorch, Tensorflow.
OpenAI Lab	An experimentation framework for Deep Reinforcement Learning.
AIVA	General-purpose virtual assistant for developers.
spacy-nlp	The official Node.js client for spaCy NLP.
dokkerJS	Dokker.js creates professional Javascript code documentations.

PUBLICATIONS & TALKS

- [1] Barba et.al. *New and Improved Spanning Ratios for Yao Graphs*. **SOCG'14**, in press.
- [2] Medium blog on deep reinforcement learning: <https://medium.com/@kengz>
- [3] Tutorials on deep RL and OpenAI Lab. latest link: Dec 2017.

AWARDS

2017	AI Grant Spring 2017 finalist - OpenAI Lab
2014	Lafayette College Benjamin F. Barge Mathematical Prize
2013-14	2 nd , 3 rd , Lafayette College Barge Math Competitions
2012	2 nd , LVAIC Regional College Math Competition
2010	Gold, Top 5 Team, Malaysian National Physics Competition
2009	Gold, ICAS International Math Competition