WAH LOON KENG

An undergraduate theorist who loves solving real world problems in math, computer science and physics.

Box 7277, Lafayette College, 111 Quad Drive, Easton, PA 18042

(484) 542-3520 kengw@lafayette.edu https://github.com/kengz

EDUCATION

Lafayette College, Pennsylvania expected May 2016
B.S. in Mathematics, Minor in Computer Science Overall GPA: 3.86

AWARDS

Lafayette College Benjamin F. Barge Mathematical Prize 2014
Second, Third - *Lafayette College Barge Math Competitions* 2013 - 2014
Second - *LVAIC Regional College Math Competition* 2012
Dean's List - *Lafayette College* 2012 - 2014
Gold, Top 5 team - *National Physics Competition, Malaysia* 2010
Gold - *ICAS International Math Competitions, University of New South Wales* 2009

RESEARCHES

Fulcrum Tech, Inc Fall 2014 - Present
Email Standard Research

· Developed HTML email template that renders consistently with responsiveness across all email clients.
GitHub (private): `HTML-Email-with-Sass, html-email-generator`.

Perimeter Institute for Theoretical Physics Summer Student Summer 2014
Quantum Foundations with Dr. Matthew Pusey and Dr. Tobiaz Fritz.

· Correlations in the C3 causal structure. Used Quantum Computation and Information theory to study the foundations and differences between quantum and classical physics.
Unpublished: `Correlations in C3` and `BlockCode and Bundled Form, W.L. Keng`.

Lafayette College EXCEL Program Summer & Fall 2013
Computational Geometry with Dr. Ge Xia.

· Delaunay Triangulation, graphs, spanner problems. Proved that the Yao-5 graph, useful in wireless networks, is a spanner, i.e. short distance always exists.
Published: `New and Improved Spanning Ratios for Yao Graphs, Barba et.al.`
GitHub: `Yao-Graph-Research.`

WORK EXPERIENCE

Email Researcher and Coder, Fulcrum Tech, Inc 2014 - Present
Graphic Designer and Proctor, Lafayette College Foreign Languages Dept. 2014 - Present
Physics Student Grader, Lafayette College 2012 - Present
Physics Supplemental Instructor, Lafayette College Spring 2014

LANGUAGES

Computer Proficient: `Java, C++, HTML/CSS/Sass, Mathematica, LaTeX`
Elementary: `C, JS, Matlab`
Spoken Fluent: English, Chinese, Malay, Cantonese, Hokkien

COURSES

Freshman
MATH 263 Calculus III
MATH 264 Differential Equations
MATH 312 Partial Differential Equations
PHYS 151 Accelerated Physics
PHYS 218 Oscillatory & Wave Phenomena

Sophomore
MATH 290 Transition of Theoretical Math
MATH 300 Vector Spaces
MATH 356 Real Analysis I
PHYS 342 Electromagnetic Fields
PHYS 351 Quantum Theory
PHYS 327 Advanced Classical Mechanics
PHYS 338 Advanced Physics Lab

Junior
CS 150 Data Structures and Algorithms
MATH 351 Abstract Algebra
MATH 358 Topology
MATH 391 Advanced Multivariable Calculus

Anticipated (Spring 2015)
CS 205 Software Engineering
CS 303 Theory of Computation
MATH 335 Probability