# WAH LOON KENG

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

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## 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*Unpublished:* `Correlations in C3` and `BlockCode and Bundled Form`, W.L. Keng.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

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|---|---|
| *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 300    Theory of Computation
Math 335  Probability