

Wee Don Teo — Résumé

CONTACT INFORMATION

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USA

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EDUCATION

Ph.D. Physics, Cornell University

January, 2013

Thesis: *Search for Supersymmetry with b -quark Jets and Missing Transverse Energy in pp Collisions at $\sqrt{s} = 7$ TeV*

M.Sc. Physics, Cornell University

June, 2010

B.Sc. Mathematics and Physics, University of Toronto

June, 2007

WORK EXPERIENCE

Opower, Arlington, Virginia, USA

Implementation Engineer III

October, 2015 - Present

- Technical lead on enterprise-level client delivery team. Launched Opower's Small and Medium Business energy efficiency product offerings for two large U.S. utility companies.
- Developed business segment classification and open hours prediction algorithms in Python for Opower's Machine Learning Lab.

Implementation Engineer II

October, 2014 - October, 2015

- Client-facing engineer for smart meter data acquisition and customer information system migration efforts. Led the end-to-end implementation and operational readiness testing phases of Opower's Peak Time Rebates product offering.
- Built an automated customer billing and smart meter data quality validation framework in Ruby.
- Led a pilot project to allow utility companies to monitor the import of customer smart meter data through Opower's data warehouse. Developed BI reporting extracts in MySQL and Hive.

Implementation Engineer I

July, 2013 - October, 2014

- Worked with utility companies on data integration projects for Opower's energy efficiency product offerings. Primary client-facing engineer for two of Opower's pilot Behavioral Demand Response product launches. Built internal tools in Ruby, Hive, and D3.js to assess quality of large-scale smart meter data.

Cornell University, Ithaca, New York, USA

Graduate Research Assistant, Cornell University

August, 2008 - January, 2013

- Member of the CMS experiment at the CERN laboratory in Geneva, Switzerland. Developed a suite of data quality monitoring visualization software tools for the detector trigger systems. Created software to extrapolate detector trigger rates into high beam luminosity regimes.
- Worked in tight-knit teams on large-scale data analysis projects for the measurement of the production rate of the top quark and the search for new-physics particles. Analysis responsibilities included the processing and storing of the datasets, the optimization of the event selection strategy, the determination of efficiencies and systematic uncertainties, and the development of novel background-estimation methods.

Cornell University, Ithaca, New York, USA

Teaching Assistant and Grader

August, 2007 - May, 2009

- Conducted weekly tutorial and laboratory sessions, prepared quizzes, and graded homework sets and examinations in fundamental physics courses for engineers and pre-med majors. Taught and supervised a total of roughly 60 students per semester.
- Graded homework sets for advanced graduate course in quantum field theory.

University of Toronto / York University, Toronto, Ontario, Canada

Undergraduate Research Assistant

May, 2006 - May, 2007

- Member of the Optical Transition Radiation proton beam monitor group for the Tokai-to-Kamioka neutrino oscillation experiment. Built simulation model of beam monitor system in ASAPTM ray-tracing software framework and studied effects of system misalignment and light efficiency on beam image. Evaluated impact of beam size uncertainty on final neutrino measurements using Monte Carlo simulations.
- Implemented pattern-finding and distortion correction methods for calibrating beam images using beam monitor system prototype and custom-made ray-tracing simulations.

University of Toronto, Toronto, Ontario, Canada

Summer Research Assistant

May, 2004 - August, 2004

- Developed a Fabry-Perot interferometer for laser calibration in the Quantum Optics research group. Repaired and improved functionality of laser diode modules using LabVIEW platform.

**HONOURS AND
AWARDS**

NSERC (Natural Sciences and Engineering Research Council of Canada)

2009 - 2012

Postgraduate Fellowship

AAPT (American Association of Physics Teachers) Outstanding Teaching

2008

Assistant of the Year

Donald G. Ivey Scholarship in Physics, University of Toronto

2004

**TECHNICAL
SKILLS**

- Analysis Tools: Significant experience with Scikit-learn, pandas, Past experience with Maple, Octave, R, ROOT.
- Programming languages: Proficient in C++, Java, Python, Ruby. Experience in Perl, Javascript, Unix shell scripts.
- Web development: Experience in D3.js, Ruby on Rails.
- Database systems: Significant experience with MySQL. Experience with Apache HBase and Hive.
- Extensive experience with Git revision control system.
- Configuration management tools: Puppet, Chef.
- Experience with large-scale data analysis (>100 TB), Monte-Carlo simulations, and machine learning techniques.