Yu-Ting Shen

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⬛ github.com/ytatus94

SKILLS

Mac OS/Linux • Microsoft Office/Apple Keynote/Pages • C/C++ • object-oriented programming • Shell script • Python/Matplotlib/Pandas/Numpy • Fortran 77/95 • HTML • LaTeX • SQL • VBA • Git/SVN • Vim • ROOT framework • Statistics • Data analysis • cross department communication • teamwork

EXPERIENCE

Organisation Européenne pour la Recherche Nucléaire (CERN) | Physicist
2015 - 2018 | Geneva, Switzerland

- Analysed proton-proton collision data collected by ATLAS detector.
- Used Python with PyROOT to perform data analysis and automate the visualization of results.
- Developed a new object-oriented programming framework using C++ to increase the performance and accuracy of the real election efficiency measurement. The new framework can process datasets 10 times larger than the previous one, automate analysis procedures reducing a week manual operations to an afternoon, and increase the efficiency upto 98%.

University of Oklahoma | Graduate Research Assistant
2011 - 2018 | Norman, Oklahoma

- Been teaching assistant and helped professors to grade homework, proctor exams, and compile student achievement statistics for many courses.
- Dedicated to the search of supersymmertic particles. Used C++ and Python to implement toy Monte Carlo, cut and count, maximum likelihood, and least Chi square fit to analyse collision data within 95% confidence level.
- Published 5 journal papers and 7 conference notes, and presented in 2 conferences.

Academia Sinica | Research Assistant
2009 - 2011 | Taipei, Taiwan

- Performed Monte Carlo simulation of the physics processes using C++ with GEANT4 package.
- Analysed the kinematic distributions of the MC simulated events.

Taiwan Semiconductor Manufacturing Company, LTD. (TSMC) | SPICE R&D engineer
2006 - 2009 | Hsinchu, Taiwan

- High-voltage SPICE (Simulation Program with Integrated Circuit Emphasis) model data collection automation, model parameterization, model accuracy validation, model documentation, and customer support.
- Cross departments discussion about SPICE model specification, production planning and scheduling.

EDUCATION

University of Oklahoma | Ph.D. in Physics | Cum. GPA: 3.47 / 4.00
2011 - 2018 | Norman, OK

- Dissertation link

National Taiwan University | M.S. in Physics | Cum. GPA: 3.86 / 4.00
2003 - 2006 | Taipei, Taiwan

- Thesis link
- Graduate student thesis Awards, The Physical Society of Taiwan, 2006

Chung Yuan Christian University | B.S. in Physics | Cum. GPA: 3.53 / 4.00
1998 - 2002 | Chung Li, Taiwan

- Certificate of Holistic Achievement Award, 1998 - 1999, 1999 - 2000, and 2000 - 2001
- Certificate of Academic Achievement Award, 2000 - 2001

LEADERSHIP

President of Taiwanese Student Association (TSA) at the University of Oklahoma
2012 - 2013