Jung Lin (Doris) Lee

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EDUCATION

University of California, Berkeley Sept 2013 - 2017

Major: Physics, Astrophysics

Relevant Coursework: Honors Mechanics, Structure & Interpretation of Computer Programs, Multivariable Calculus, Honors Electromagnetism, Differential Equations and Linear Algebra, Algorithms and Data Structures, Honors Modern Physics, Optical and Infrared Astronomy Lab, Statistical Mechanics, Quantum Mechanics, Electromagnetism and Optics, Modern Physics and Advanced Electrical Laboratory, Introduction to High Performance Computing for Astrophysicists

SKILLS

Python	IDL
Java	SQL
HTML/PHP	LaTeX
Scheme	ROOT
C	Working in UNIX shell

EXPERIENCE

Star Formation Research November 2014 - Present

- Investigating the effect of magnetic field in dense molecular cores as sites for protostar formation.
- Using parallel, adaptive mesh refinement methods to simulate collapse of dense molecular cores.

University of Illinois Laboratory for Cosmological Data Mining May 2014 - Present

- Using deep neural networks for galaxy morphology classification.
- Developing a new, scientifically-calibrated version of the RC3-cataloged galaxies that lies within the Sloan Digital Sky Survey footprint. Paper submitted for review to *Astronomy and Computing*.

CITRIS Invention Lab June 2014 - Present

- Developing a ferro-fluid sketching technique as a new interface for human-computer interaction.
- Building a pipeline for rapid prototyping PCB-like circuits using flexible polystyrene plastic sheets as substrates.

Lawrence Berkeley National Lab SDSS-BOSS Group August 2014 - January 2015

- Investigating how systematic affect the imaging data quality from the Sloan Digital Sky Survey.
- Identifying possible biases to Baryon Oscillation Spectroscopic Survey's initial target selection to put further constraint on cosmological parameters.

Quantum Information with Trapped Ions Group May - August 2014

- Investigating Rabbi oscillations of trapped calcium ions in two-level system as a realization of quantum computer.
- Developing Python- and LabRAD-based programs for laser control, experimental measurements, and subsequent data analysis.

Simon Fraser University High Energy Physics Research Group July 2012 - Sept 2013

- Analyze tau decay channel from the ATLAS experiment using PyROOT to recreate mass of the Higgs and Z bosons
- Investigate methods of eliminating background decay processes.

ACTIVITIES

News Editor for Association for Computing Machinery Magazine Nov 2014-Present

Club Liaison Society of Physics Student Sept 2014-Present

Volunteer at Berkeley COMPASS Project Sept 2013-Present

Outreach education and support minorities in the physical sciences.

UC Berkeley Computer Science Scholars Program 2013-2014 school year

Burnaby South Secondary School IPhone App Developer 2011- June 2013

Volunteer Builder at Free Geek Society 2011- June 2013

Reuse & recycling donated hardware and components
and donating working products to local non-profits and educational institution.

1st Burnaby Southwest Scouts Junior Leader and Event Volunteer 2006 - June 2013

Creator and Co-President of the Burnaby South Physics Club 2012 - June 2013

Creator and Developer of Physics Infinity 2011-2013