JONATHAN GUIANG

6721 El Colegio Road, Apt. 40
Isla Vista, CA 93117

Personal Website: www.jonathanguiang.com | **LinkedIn:** linkedin.com/in/jonathanguiang | **Github:** https://github.com/jkguiang

Contact

Phone: (858) 880-5819
Email: jkguiang@gmail.com

Skills

Technology:
- Programming Languages: Python (experienced), Javascript (experienced), C++ (intermediate), Matlab (basic)
- Web Development: PHP, HTML, CSS, React, jQuery
- Tools: Photoshop, OpenSCAD, Microsoft Office Suite, Docker
- Miscellaneous: Vim, Git, Bash, LaTeX

Interpersonal:
- Collaborated with others in various situations: research, clubs, volunteer work
- Adept at communicating with co-workers and strangers alike
- Experienced in giving and following directions

Experience

Campagnari Group (UCSB)
Performed and practiced analysis on data from the CMS detector in the LHC as part of the CMS Collaboration. Attended, scheduled, and presented at many meetings with PhD physicists and graduate and undergraduate students around the world in order to coordinate efforts or demonstrate progress on various projects.

Position: Undergraduate Researcher
Principle Investigator: Claudio Campagnari
Employment Type:
1. Volunteer
2. Full-time

Duration:
(1.) Dec. 2016 – Jun. 2018
(2.) Jun. 2018 – Sept. 2018
(1.) Sept. 2018 – Present

Project Links:
AutoDQM
MilliQan
M_{T2} Analysis
MIP Timing Detector

AutoDQM (Aug. 2017 – Present)
Conceptualized, designed, and implemented a statistical tool for data quality management with an online graphical interface for ease of use. Continued collaboration with another student in Switzerland to further improve the platform and market it to other research groups.

MilliQan (Dec. 2017 - Jun. 2018)
Characterized single-photoelectron (SPE) response of photomultiplier tubes used in the "MilliQan" experiment demonstrator under the direction of a graduate student, working closely with another undergraduate. Developed software for simulating SPE responses.

M_{T2} Analysis (Jun. 2018 - Present)
Search for new physics using events from a sample of proton-proton collisions collected with the CMS detector with jets and a large transverse momentum imbalance as measured by the M_{T2} variable.

MIP Timing Detector (Oct. 2018 - Present)
Developed software for optimizing the design for the Endcap Timing Detector to be constructed for the HL-LHC upgrade. Using simulated particle kinematics to measure the efficiency and other response characteristics of the detector.

Pramantha Solutions
Designed intuitive user interfaces for proof of concept images used in professional presentations and prototype applications.

Position: Consultant
Supervisor: John Sanders
Employment Type: Project Based
Duration: Aug. 2016 – Dec. 2016

Education

(Undergraduate) University of California Santa Barbara (2015 - 2019)
Major: Physics **GPA:** 3.70 (Last updated – June 22, 2018)

(Secondary) Canyon Crest Academy (2011 - 2015)
GPA: 4.11 (Weighted), 3.94 (Non-weighted) **ACT Score:** 33