

Jonathan A. Chandler

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300 Tiffany Terrace, Fremont, CA 94536

Education

B.S. Candidate in Physics

Sept. 2016 – Present

University of California Santa Barbara

- Physics: Electromagnetism, Quantum/Wave Theory, Electrical/Optics Lab, Lagrange/Hamilton Mechanics
- Math: Complex Analysis, Vector/Multivariable Calculus, Series and Transforms
- Electrical: ME 104 (Mechatronics with Lab), ECE 10B (EE 2nd Year Course, received highest grade in class)
- Miscellaneous: ME 12S (Machine Shop), WRIT 107T (Technical Writing), ENGR 3 (Matlab Programming)

Additional Courses from MIT Online

Summer 2017

- MITx 6.00.1 Python Coding: Computational Complexity and Coding Practices
- MITx 6.002.1 Circuit Analysis: Digital Abstraction and Nonlinear Elements with practical applications

Experience

Undergraduate Researcher, TEALab (Transport for Energy Applications Lab)

Spring 2018

University of California Santa Barbara

- Characterized materials using femtosecond laser TTG (transient thermal grating) technique
- Created tools to automate material analysis and simplify laser experimental setup in Matlab
- Used Powerpoint to deliver presentations to research group

Schematic Engineer Intern, sp³ Diamond Technologies

Summer 2016 & Winter 2017

Santa Clara, California

- Interpreted design concepts with engineers to improve existing CVD reactor schematics
- Coordinated with engineers, assembly, and management to perform documentation control tasks such as storing, managing, modifying, and maintaining accuracy of company technical information
- Streamlined reactor assembly with overhaul of technical drawing database
- Computerized hand-drawn cable and chamber part diagrams using CAD software
- Completed assigned intern project ahead of schedule. Project was adopted as basis for future documentation standards by Engineering department. Completed additional projects before returning to school.

Research Intern, California Nanosystems Institute

August 2016

University of California Santa Barbara

- Assisted researchers synthesizing and testing thin film semiconductor samples for PhD project
- Discovered previously unresearched physical property of 2D semiconductor Tungsten Ditelluride (WTe₂)
- Used PowerPoint to organize and present findings to peer, faculty, and industry visitor audience

Process Engineering Intern, sp³ Diamond Technologies

Dec. 2014 – May 2016

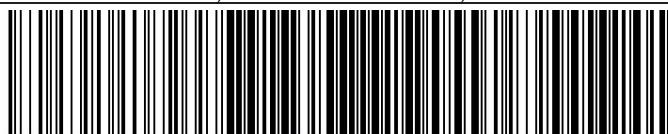
Santa Clara, California

- Hands-on experience with diamond deposition in CVD reactors, elemental analysis using XRF, and metal surface cleaning and honing with wet blast machines
- Upgraded facility and cleanroom by installing, repairing, and replacing equipment
- Performed cleanroom tasks such as measuring surface removal, calculating deposition rates to determine film thickness, and determining percentage yield of reactor processes
- Inspected and binned tool samples to ensure quality before shipping

Skills

- Circuit design and simulation using LTSpice and Designsoft TINA
- PCB (Printed Circuit Board) layout design and production with KiCad EDA
- Matlab, LabVIEW, Python, HTML programming; LaTeX proficiency
- Computer hardware knowledge and troubleshooting
- Microsoft Office Suite proficiency
- Soldering/desoldering, Hardware debugging and PCB assembly/repair
- Machining tools, including Lathe, Mill, Band Saw proficiency

Additional Projects and Info at jachandler.com



jachandler.com/projects/