

Adrian Tatulian

(407) 625-6039

Curriculum Vitae

jcmaxwell@knights.ucf.edu

Education

2015 **M.S., Optics and Photonics**, *University of Central Florida*, Orlando, FL

2013 **B.S., Physics**, *University of Central Florida*, Orlando, FL

Publications

Journal Papers

- 2014 Jennefir L. Digaum, Javier J. Pazos, Jeffrey Chiles, Jeffrey D'Archangel, Gabriel Padilla, Adrian Tatulian, Raymond C. Rumpf, Sasan Fathpour, Glenn D. Boreman, and Stephen M. Kuebler. "Tight control of light beams in photonic crystals with spatially-variant lattice orientation." *Optics Express* 22(21), 25788-25804 (2014).

Employment and Professional Activities

2016 – 2018 **Physics Teacher**, Orange County Public Schools, Orlando, FL

- Taught Physics at all levels from Regular to Advanced Placement.
- Researched technology integration for cooperative learning and presented to colleagues at weekly meetings.
- Participated in community STEM nights.

2014 - 2015 **Graduate Research Assistant**, Department of Optics and Photonics, University of Central Florida, Orlando, FL

- Advisor: Dr. Zenghu Chang
 - o Responsible for management of laser systems and construction of experimental apparatus.

2011 – 2013 **Undergraduate Research Assistant**, Department of Physics, University of Central Florida, Orlando, FL

- Advisor: Dr. Stephen Kuebler
 - o Worked on fabrication and testing of photonic crystals designed to bend light at 90 degrees with near-100% efficiency. Researched applications in silicon photonic systems.
- Advisor: Dr. Hari Saha
 - o Worked on computationally determining atomic structure of complex atoms using FORTRAN, and modeling atomic collisions in the upper atmosphere.

█ Talks & Presentations

2013 **Showcase of Undergraduate Research Excellence**, *University of Central Florida, Orlando, FL*

Presentation Title: "Investigation of Excitation and Ionization of Argon Atoms."

2012 **Showcase of Undergraduate Research Excellence**, *University of Central Florida, Orlando, FL*

Presentation Title: "Investigation of Excitation and Ionization of Highly Charged Atoms in the Upper Atmosphere."

█ Selected Coursework at UCF

- Advanced Computer Architecture (CDA 5106)
- Optoelectronic Device Fabrication Laboratory (OSE 6615L)
- Flat Panel Displays (OSE 6820)
- Computer Science 1 - 2 (COP 3502/3503)
- Object-Oriented Programming (COP 3330)
- Computer Logic and Organization (CDA 3103)
- Physics of Scientific Instruments [introductory logic design] (PHY 3752)

█ Technical Experience

Programming Languages: C/C++/Java/FORTRAN/Python (scientific applications)

Scientific Computing: MATLAB/Mathematica

Data Analysis: Microsoft Excel/Origin

Optical: Management of laser systems/optical system alignment/lens design using ZEMAX/device fabrication using direct laser writing/photolithography