Kyle Solowiej Hawkins

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Work Experience

Airy Optics Inc. **Tucson, AZ**
Algorithm Scientist May 2016 - Present

- Developed and integrated polarization ray tracing algorithms for Polaris-M ray tracing software
- Modeled/analyzed optical systems during engineering service projects with Polaris-M
- Built an image simulation program to model the effects of dichroic dies on polarized images
- Created marketing material and software demos for exhibitions at SPIE and OSA meetings
- Supervised two software development interns (quality control and documentation)
- Administrated the Polaris-M source code repository

Zemax LLC. **Kirkland, WA**
Optical Engineering Intern June 2015 - August 2015

- Performed study on the optical performance of Extended Aspheric Polynomial types (Forbes Q-Type vs Even Polynomials) during numerical optimization
- Authored informative articles on Polarization for the Zemax Knowledge Base

College of Optical Sciences **Tucson, AZ**
Undergraduate Research Assistant April 2014 – May 2016

- Wrote Thin Film Optimization software in Mathematica
- Created computer generated graphics to describe polarization phenomena
- Updated webserver (JavaScript) for remote access to optical polarization ray tracing software

University of Arizona Think Tank **Tucson, AZ**
Supplemental Instructor August 2013 – August 2015

- Led supplemental review sessions for the Electricity and Magnetism course PHYS 241
- Observed and mentored new coworkers as they began to facilitate their own instructional sessions
- Became lead instructor, directed session planning and interfaced with PHYS 241 professors

Math and Physics Tutor January 2014 – May 2014

- Tutored students in calculus I, calculus II and algebra math classes - Certified Level 1 Tutor

Education

Institution: University of Arizona, Honors College
Dual Major: Optical Sciences and Engineering (B.S.), Applied Mathematics (B.S.)
Graduate Course Work (non-degree seeking): ten (10) units, three (3) classes one (1) lab: Polarization in Optical Design, Polarimetry, and Electromagnetic Waves
IBM Thomas J. Watson Memorial Scholarship: Merit scholarship for academic excellence

Interests

Rock climbing enthusiast: Traditional, sport, and gym climbing
Math History: Lots of crazy stories
Soccer: It's a lifelong game