John L. Waczak

TECHNICAL

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King City, OR, 97224

Computational Physics, Applied Mathematics, Spectroscopy Interests

September 2015 – present Oregon State University, Corvallis, OR. **EDUCATION** (GPA 3.90/4.0)

Bachelor of Science in Physics and Mathematics

Programming and Operating Systems: Python, C++, C#, Mathematica, LATEX, git,

Linux, Windows, MS Word, MS Excel, Numpy, Matplotlib, SQLite SKILLS Electronics: Arduino, Raspberry Pi, National Instruments, Soldering

Roundy Research Group, Oregon State University January 2017 – Present EXPERIENCE Undergraduate Researcher github.com/john-waczak/dynein_walk

> I am working with Dr. Roundy to develop and test computational simulations which evaluate a physical model for the locomotion of the cellular motor protein Dynein. My duties include editing simulation code (C++), writing scripts to analyze and visualize large data sets (python), exploring the simulation space to find the best set of parameters to produce physical behavior, and presenting my findings at weekly group meetings.

Cooper Environmental Services, Beaverton, OR

March 2015 - December 2017

Intern

I developed a program in c# to enable the production team to test input/output boards before they are put in instruments. This involved writing code to send and read voltages as well as creating a graphical user interface via Microsoft Visual Studio. I designed and implemented controller logic (using a PID loop) for controlling a vacuum pump. Using Modbus serial communications protocol, I created code to make data accessible locally with a Modbus slave device.

Physis 201 TA, Oregon State University

September 2017 - Present

I am a teaching assistant for the Physics 21x and 20x series (with and without calculus). This involves teaching multiple sections of the lab, grading weekly assignments, holding office hours, and proctoring examinations.

Physics 199 TA, Oregon State University

January 2017 - March 2017

I was one of two undergraduate teaching assistants for the introductory class Physics 199, a student organized "intro to the physics major" class. As a TA I organized lab tours and guest speakers as well as a panel of upperclassmen to talk to students about the physics track at OSU.

ACTIVITIES Lambda Chi Alpha (ΛXA) Vice President September 2015 to Present

I am the current Vice President of the Alpha Lambda chapter of Lambda Chi Alpha Fraternity. We are a 140 man organization devoted to building leaders and serving our community. My duties as VP include organizing weekly brotherhood events, presenting each week during our chapter meetings, talking with Alumni, and administering various executive committee responsibilities.

Society of Physics Students Member, Mentor

September 2015 to present

As a mentor, I am paired with a new undergraduate physics major whom I help acclimate to university classes (expectations, resources, class suggestions, etc...)

Sigma Pi Sigma ($\Sigma\Pi\Sigma$) National Physics Honor Society member

June 2017 to present

September 2015 to present

Community Outreach Inc. Corvallis, OR - Volunteer

June 2016

AWARDS Lambda Chi Alpha - Alpha Lambda Chapter Freshmen of the Year

Awarded for grades, involvement, and overall chapter vote.

Oregon State honor roll 2015-present

Awarded for achieving above a 3.5 GPA and being enrolled in a minimum of 12 credit hours per term.