# Rebecca P. Wong

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## Education

**Grinnell College – Grinnell, IA** **August 2013 – December 2016**

- B.A., Physics, Minors in Environmental Studies and East Asian Studies, GPA: 3.61/4.0

## Languages and Skills

- Python, web-based APIs
- Microsoft Excel, statistical analysis and Origin
- OpenFOAM CFD, mesh quality tests
- Linux terminal, parallel computing
- Biofuels, TGA
- Literature review
- Standards (IEC, ISO) and SOPs
- German (Intermediate)
- Japanese (Intermediate)

## Selected Research and Company Experience

**SunOyster Systems GmbH and Suntrace GmbH – Hamburg, Germany**
Researcher **February 2019 – July 2019**

- Developed model in OpenFOAM to evaluate lift, drag, and moment coefficients at maximum wind load as well as atmospheric boundary layer model for concentrated solar power (CSP) product SunOyster8
- Wrote Python codes to evaluate shading effects at site due to local topology for solar resource assessment (SRA) using Open Elevation API, create maps displaying coverage zones of different satellites and SRA providers using Basemap, and to plot histograms with fits for extreme wind assessment using DarkSky API
- Presented on updated standards IEC 61724-1 and ISO 9060 relating to SRA measurements and equipment

**Okinawa Institute of Science and Technology Graduate University Research Internship – Okinawa, Japan**
Researcher in Femtosecond Spectroscopy Unit **January 2018 – July 2018**

- Optimized alignment of optical pump-terahertz probe (OPTP) system and designed cryostat holder for experiment on single crystal perovskite carrier mobility at low temperatures
- Plotted and determined charge carrier lifetimes using Origin

**Student Undergraduate Laboratory Internship – Argonne National Laboratory, Lemont, IL**
Researcher in Tribology Lab **September 2017 – December 2017**

- Conducted 4-Ball, High Frequency Reciprocating Rig (HFRR), and Pin-on-Disk tests to determine lubricant properties regarding wear and friction
- Analyzed results using optical microscopy and white light interferometry/profilometry
- Wrote Python code to analyze material porosity through calculation of pore area in images

**Student Undergraduate Laboratory Internship – Lawrence Berkeley National Laboratory, Berkeley, CA**
Researcher at Advanced Biofuels Process Development Unit **January 2017 – April 2017**

- Pretreated, fermented, and quantified yields (using HPLC) of biofuel from agricultural residue and waste
- Performed tangential flow filtration and rotoevaporation for protein concentration and purification tests

**Sustainable Forest Bioproduct Research Experience for Undergraduates – University of Maine, Orono, ME**
Researcher in Energy Testing Lab for Sustainable Bioproducts **June 2016 – August 2016**

- Determined densities and moisture of softwood, hardwood, and mixed wood fuel pellets using a pycnometer
- Evaluated impacts of heating at different temperatures on residual higher heating value, combustion characteristics, and peaks of mass loss using a thermogravimetric analyzer and bomb calorimeter

## Additional Experience

**IOWATER – Grinnell, IA**
Chief Leader **August 2013 – December 2016**

- Wrote and implemented $2,500 grant funding 4 bioreactor/nitrate reduction educational workshops
- Monthly data collection and entry on stream quality (pH, chloride, nitrate/nitride, phosphorus, etc.)
- Managed ArcGIS mapping system for labelling over 60 storm drains to prevent dumping

## Honors and Achievements

Congress-Bundestag Youth Exchange for Young Professionals 2018 - 2019
Harvard Business School Credential of Readiness (CORe) in Business, Passed with Honors 2016
Udall Scholar Foundation Honorable Mention Recipient 2015
450 Hour AmeriCorps Member with American Conservation Experience 2013