

Education

Johns Hopkins University (JHU)

- M.S.E Materials Science & Engineering - GPA 3.3

Fall 2016 - Winter 2017

University of California, Santa Barbara (UCSB)

- B.S. Physics - GPA 3.2

Fall 2012 - Spring 2016

Skills

- Databases, Frameworks: PostgreSQL, MySQL, Django
- Programs, Applications: Mathematica, Tableau, Jupyter Notebook, NI Multisim, Microsoft Office
- Programming Languages: C++, Python, Matlab, HTML/CSS

Experience

Tribe Dynamics – Data Consultant, Contractor

July 2016 - Present

- Maintained brand and influencer database to provide data for clients, internal research, and decision making
- Tested and integrated data pulling applications to validate, regularize, and maintain the integrity of internal research data
- Led product design while communicating with Customer Support, Data Engineering, and Business Operations
- Creating best-practice reports based on data mining, analysis, and visualization

University of Texas at El Paso – Business Affiliate/Researcher

June - September 2015

- Used modern computational modelling methods to calculate relevant properties of candidate materials with a focus on energy storage to screen them before they are synthesized
- Modeled and optimized fullerene structures using NRLMOL (Naval Research Laboratory Molecular Orbital Library), a massively parallel code for electronic structure calculations, for use in organic photovoltaics
- Presented research projects and represent program at COURI Symposium and external advisory board meeting

Kumon Education Center – Assistant Instructor

June 2011 – August 2012

- Used internal CMS software program to monitor student progress, adjusted curricula as needed, and prepared student files for class
- Handled inquiries including appointment scheduling, orientation sign-ups, and enrollment
- Assisted with administrative tasks relating to Center operation as needed

Projects

Parsing and Regularizing Address Data (Python, Django)

Spring - Summer 2018

- Developed and integrated an ambassador relationship management application for influencer marketing programs to collect, validate, and compare incoming freeform data inputs
- Google Places API implementation to uniquely identify all establishments, geographic interests, and other POIs through HTTP requests

Characterizing and Identifying Unknown Samples for Homewood Museum

Winter 2017

- Performed a series of tests using various methods (including AFM, SEM/EDS, XRD, and Raman Spectroscopy) to perform roughness analysis, study surface porosity and filtration properties, as well as material chemical composition
- Cross-referenced with cultural context and museum history to determine likely uses for specimen and its cultural and historical significance

Electronic Structure of Fullerenes for Use in Organic Photovoltaics

Summer 2015

- Encapsulated transition metal clusters in fullerenes to stabilize molecules with high magnetic anisotropy energy for potential application in magnetic storage devices
- Calculated electronic and magnetic properties using density functional theory (DFT) computational methods
- For more details of this project, please visit [this link](#)