

ANNA MUN

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Education

Northeastern University, Boston, MA

Bachelor of Science, Physics

GPA: 3.2

Honors: Lawrence Undergraduate Research Fellowship Recipient

Work Experience

Massachusetts General Hospital – Harvard Medical School

Boston, MA

Research Technician, Herminia Diana Rosas, M.D.

January 2019- present

- Investigated functional connectivity, white matter tractography, and cortical/subcortical volume changes in Huntington Disease subjects using structural and functional magnetic resonance imaging (MRI)
- Studied Alzheimer's Disease progression in Down's Syndrome by tracking functional connectivity and white matter tractography impairment as potential biomarkers
- Scanned positron emission tomography (PET) images

Theoretical Soft Matter and Biophysics Group, Northeastern University

Boston, MA

Research Assistant, Dapeng (Max) Bi, Ph.D.

October 2018 – March 2019

- Analyzed and processed images of cells in MATLAB, created a technique to extract information from three dimensional image matrices
- Structured data for over 2 thousands cells, for each cell, listed its location, boundaries, and neighboring cells

Laboratory for Graphene Research, Northeastern University

Boston, MA

Research Assistant, Swastik Kar, Ph.D.

August – December 2017

- Developed LabVIEW UI tool to control, move, and locate Newport CONEX-AGP linear stages along the xy-grid
- Engineered 2-dimensional MoS₂ heterocrystal structures, experimented with growth conditions (temperature, ratio of reagents, time), conducted analysis of samples with transmission electron microscope
- Mapped images of 20 hexagonal structures of selected area electron diffraction patterns of MoS₂ crystals grown in a laboratory

Green Materials Laboratory, National Taiwan University of Science and Technology

Taipei, Taiwan

Research Assistant, Yee-Wen Yen, Ph.D.

March – April 2017

- Ran 48 experiments to study interfacial reaction between lead-free solders and metal Alloy-42: prepared samples, vacuum-sealed reagents in sample tubes, experimented with reaction conditions (time, temperature)
- Examined samples with transmission electron microscope, collected and validated experimental data, presented findings to the principal investigator and his research team
- Tutored 5 graduate students in formal scientific writing in English for research paper publication purposes

Grantham, Mayo, Van Otterloo & Co. LLC

Boston, MA

MATLAB Research and Development Co-op Intern

January – June 2016

- Created MATLAB toolbox to call functions from another user's environment for quick communications between different developers and debugging purposes
- Designed the UI to upload .csv files, specify trade parameters, run functions to build trades between 50 accounts, and save output in original .csv format

Symbotic LLC – Robotic Warehouse Solutions

Wilmington, MA

Robotic Research and Development Co-op Intern

January – June 2015

- Implemented statistical analytics to analyze customer inventory and e-commerce orders in MATLAB; visualized and summarized observations and trends to present for customer and team meetings
- Collaborated with a small team of 7 to develop a unique warehouse storage and operating strategy for over 50K of SKUs and thousands of orders
- Designed an order sorting system, put-wall; and visualized it as a three-dimensional graphical model in MATLAB, operating for 300-500 orders at a time

Skills and certifications

MRI certification for safely and accurately scanning human subjects, Linux/UNIX, Siemens MRI software, MATLAB, R, C++, LabView, LabWindows, MS Office Excel/Word/PowerPoint, LaTeX, Basic Scientific Techniques, Basic Circuit Design, Native Russian Language

Activities

- Vice President of the Society of Physics Students 2017 – 2018
- Teaching Assistant for Physics 2 Labs January – May 2018
- Peer Tutor, Physics 1-2 September – December 2014
- Russian Language instructor for NUCALLS program September – December 2014