

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

- Worked with human brain imaging data – operated magnetic resonance imaging (MRI) and positron emission tomography (PET) scanners, and analyzed the data using FreeSurfer software
- 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

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

MATLAB, R, shell scripting, Python, LabView, Linux/UNIX, GCP, MS Azure, MS Office Excel, Siemens MRI software, FreeSurfer software, LaTeX, Basic Scientific Techniques, Basic Circuit Design, Native Russian Language

Activities and Hackathons

- Hack(h)er413 – Shazam4Petz app: winner in “Best use of Google Cloud Platform” category February 2019
- MakeHarvard – Purrfect Alarm project: demoed January 2019
- Vice President of the Society of Physics Students 2017 – 2018
- Teaching Assistant for Physics 2 Labs January – May 2018