Faculty Name: Katayun Barmak
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Lab: Barmak Lab
Project Title: Automated Grain Boundary Detection in Bright-Field Transmission Electron Microscopy Images
Description: Most technologically useful materials are polycrystalline microstructures composed of a myriad of small monocrystalline grains separated by grain boundaries. The aim of the project is to further advance the use of machine learning to automatically trace grain boundaries in bright-field transmission electron micrographs for subsequent statistical analysis of microstructural metrics, both static and dynamic. The project has had a strong track record of undergraduates as coauthors on manuscripts.
Location of Research: On Site
# of hrs/week: 10
Department/Program: Applied Physics and Applied Mathematics
Eligibility: BS, First Year, BS, Second Year
To apply, please contact: Katayun Barmak
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