

# NC STATE UNIVERSITY

## Undergraduate Summer Research – Paid Position

The Amassian Research Group seeks an Undergraduate Engineering student to assist in research-related programming needs starting May 2019. Tasks include, but are not limited to, programming design for 3D printing, integration of dispensers/pumps, automation of solution processing methods related to printed electronics, and integration of characterization equipment for in situ measurements. The student will contribute to the crucial task of automating processes for perovskite film and single crystal growth and characterization, nanomaterial synthesis, solution processing for solar cells and other semiconducting devices, and additive manufacturing of conductive materials. Student efforts will build the foundation for many future programming tasks within the Amassian Research Group and collaborating groups throughout the College of Engineering at NCSU and other Universities. Student should be familiar with open source programming software, SolidWorks, LabView (or other widely compatible programming languages, such as Python), integration of multiple devices, and general programming development. Student will work closely with one or more graduate students for project assignments and support. He/she should be available for Summer '19 research with the opportunity to continue into the Fall semester if interested. The Amassian Group offers an interesting mix of fundamental science with engineering design creating a beneficial learning environment for any undergraduate student interested in research or industry.

Professor Aram Amassian manages a research group consisting of 3 postdocs, 5 graduate students, and a handful of undergraduate summer researchers. The Amassian Research Group seeks to enable a new paradigm in additive manufacturing through research and development in ink-based organic and hybrid electronic materials. Research is performed in a state-of-the-art Ambient Manufacturing of Electronics (AME) laboratory, part of the Carbon Electronics Cluster, which enables both scientific research, such as into the mechanisms of self-assembly and crystallization of functional materials, and engineering developments, including the fabrication of electronic, optoelectronic and photovoltaic devices. AME also carries out engineering efforts to integrate the ambient printing of electronic materials with classical additive manufacturing platforms to enable integrated manufacturing approaches.

Please contact Laine Taussig (graduate student) to further discuss opportunity  
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