**Jacob Neff**

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**Education**

University of Florida, Materials Science and Engineering GPA: 3.81

* Senior, Semiconductor Material certificate. Expected Graduation – May 2018

**Work Experience**

Multidisciplinary Nano and Microsystems (MnM) Laboratory Interdisciplinary Microsystems Group

*Research Assistant* August 2017 - Present

* Refined the process of creating lanthanum nickel oxide films atop bulk silicon, BTO, and BST to optimize a 100-crystal orientation for communication and signal applications. Synthesized ferromagnetic iron-doped BTO for memristor application.
* Received access and training to the IMG lithography and microfabrication lab as well as opportunity to work in the UF Nanoscale Research Facility with clean room.
* Aided in the design and installation of weight sensors in select RTS buses for tracking bike rack usage.

Ithiel Camp and Retreat Center – Gotha, FL May 2010 – August 2017

* Lifeguard – Poolside and Dockside

Completed American Red Cross training for Lifeguarding, First Aid, CPR, and AED.

Managed a team of several fellow lifeguards, assigned work schedules, and covered shifts where needed.

* Kitchen, Maintenance & Grounds-Keeping Staff

Adapted to the dynamic needs of a summer camp operating at capacities between dozens and hundreds.

Solved problems and addressed customer worries proactively and creatively with no management needed.

**Leadership Experience**

* Outreach Chair, Materials Advantage, UF Spring 2017 – Present

Worked with department professors to stimulate interest in science and material engineering by demonstration and classes with local high schools, K-8 programs, and boy scout troops.

* Eagle Scout, BSA Troop 225, Windermere, FL February 2014 – Present

Executed weekly meetings, monthly campouts, council meetings, and projects.

Served and still serve as an Assistant Scoutmaster, giving experienced advice.

**Technical Skills**

* Full NRF access with Clean Room, access to MA6 Mask Aligner and Sputter Deposition
* Dry Plasma Etch, Ion Implantation (SRIM)
* Barium Titanate Sintering, includes Pellet Pressing, LCR Meter, Archimedes Density
* ImageJ, Granta EduPack., Microsoft Office
* SEM Certified, EDS & DSC Analysis, Instron Tensile Tester, Melt Flow Indexer.
* XRD, Thermal Evaporator, Four-point Probe
* Spin Coating, Lithography, BOE
* Hall Measurement, Profilometer, Ellipsometer
* Lindberg High Temp. Furnace, Tube Furnace

**Relevant Coursework**

* Error Analysis (MATLAB)
* Inorganic/Ceramic Material Processing
* Production/Synthesis of Electronic Materials
* Mechanical Behavior/Stability of Materials
* Material Selection and Senior Design
* Material Interfaces, Transport & Kinetics
* Analysis/Characterization of Material Structure
* Electronic Material Fabrication Lab

**Awards**

* Selected for Alpha Sigma Mu, the material engineering honor society (Spring 2016 – Present)
* Florida Bright Futures and Academic Scholars and Dean’s List (Fall 2014 – Present)