SUNAY BHAT

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INDUSTRY, RESEARCH, AND ENTREPRENEURIAL EXPERIENCE

Lockheed Martin - Santa Barbara Focalplane

Goleta, CA

Systems Integration/Test Engineer Associate

September 2017-Present

- Working extensively in infrared detector characterizations, radiometry, process improvements, and production support with mid-wave InSb and nBn focal planes in cryo-cooled systems
- Providing primary support in multiple major technical efforts including cross-site data correlation and specification characterization projects
- Completed three major cost-savings packages, including a cross-site test-requirement change based on an indepth analysis of unnecessary radiometric test requirements

Red Ribbon Recruiting LLC

Los Angeles, CA

Co-Founder and Technical Operations Manager

August 2018-Present

• Founding LLC with fellow former student athlete using advanced data basing and visualization techniques to offer collegiate coaches analytic tools for targeted recruiting and team improvements

Nano Terra Inc. Cambridge, MA

Electrical Engineering Research Intern

June-August 2016

- Completed the design and prototype construction of a chemical sensor embedded system while improving data rate transmission performance by an order of magnitude
- Developed software in C++ while testing and selecting hardware components for initial product

Oak Ridge National Laboratory - Manufacturing Demonstration Facility

Oak Ridge, TN

Research Assistant

July-August 2014

• Assisted research with 3-D metal printers on graded composition printing and software to predict microstructure as a function of thermal cycling

UT Nonwovens Research Laboratory - University of Tennessee

Knoxville, TN

Research Assistant, Part Time – UT Nonwovens Research Laboratory

August 2014-May 2016

• Evaluated conductivity of carbon nanotube (CNT) yarns and graphene reinforced polymeric fibers

EDUCATION

University of Tennessee

Knoxville, TN

BS in Electrical and Computer Engineering, Summa Cum Laude (GPA: 3.91)

May 2017

TECHNICAL SKILLS

Programming and Software

- Expert: MATLAB (radiometric calculations, data analysis, instrument control, machine learning)
- Advanced: Python (data harvesting, custom libraries), C++ (coursework), Office 365 (engineering notebooks, critical program and design reviews, production test procedures)
- Proficient: PowerBI (data visualization), SQL Microsoft Access (databasing)

Hardware

- Extensive troubleshooting and support of test hardware including Agilent power supplies/analyzers, Keithley DMMs, Electroglas wafer prober, thermal chambers, environmental stress testing equipment, etc.
- Soldering, PCB design, basic IC design, embedded systems development, serial GPIB, National Instruments
- Industry and academic lab experience with clean rooms, microscopes, machining tools, sample prep, etc.

LEADERSHIP/COMMUNITY EXPERIENCE AND AWARDS

- UTK Student Athlete on Varsity Tennis Team, 2013-2017 (2016-2017 Team Captain, Four-Time SEC and ITA Scholar Athlete Award, 2014 NCAA Championships Sweet Sixteen Appearance)
- Member of Student-Athlete Advisory Committee with 50+ hours of community service, 2015-2017
- Five time Lockheed Martin next-gen employee recognition recipient and lead/co-lead on multiple STEM community outreach events
- UTK Chancellor's Honors for Outstanding Academic Achievement and Scholar Athlete, 2017

PUBLICATIONS

Azari, H., Bhat, G., Hiremath, N. **Bhat, S.** (2017) Structure and Properties of Polypropylene Graphene Composite Filaments. The Fiber Society 2017 Fall Meeting and Technical Conference.

Toth, Albert J.; **Bhat**, **Sunay** G.; Treadway, Christopher A.; Abdelwahed, Ammar S.; and Leach, Samuel C., "Min Kao Autonomous Robot Tour Guide" (2017). University of Tennessee Honors Thesis Projects.