SUNAY BHAT

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INDUSTRY, RESEARCH, AND ENTREPRENEURIAL EXPERIENCE

Lockheed Martin – Santa Barbara Focalplane **Goleta, CA**

Electro-Optical Engineer June 2019-Present

- Lead technical operations engineer on site's largest production program manufacturing cryo-cooled InSb and nBn infrared detector systems
- Streamlining documentation processes for major technical efforts and consolidated large databases for proprietary technical knowledge
- Negotiating multiple specification and requirement changes based on improved system characterizations
- Training fellow engineers on test methodology, data evaluations, site processes, and production software

Systems Integration/Test Engineering Associate September 2017-May 2019

- Worked extensively in infrared detector testing, radiometric characterizations, and production support with mid-wave InSb and nBn focal planes in cryo-cooled systems
- Provided primary test support in multiple major technical efforts including cross-site analysis and defect characterization projects
- Coordinated test and process engineering experiments and data analysis to improve manufacturing processes
- Documented technical work extensively through engineering notebooks and glossaries
- Completed multiple cost-savings packages, including a customer test-requirement change which was based on an in-depth analysis of unnecessary requirements

Red Ribbon Recruiting, LLC **Los Angeles, CA**

Co-Founder and Technical Operations Manager September 2018-Present

- Analyzing competition data to predict future performance, meet results, and recruiting opportunities
- Developed database generation and management tools to provide analytical advantage to clients
- Delivering advanced visualization and reports to coaches for targeted recruiting and team improvements

Nano Terra Inc. **Cambridge, MA**

Electrical Engineering Research Intern June-August 2016

- Designed and prototyped construction of a chemical sensor embedded system while programming system software in C++, improving data rate transmission performance

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 May 2017

TECHNICAL SKILLS

Programming and Software

- Expert: MATLAB (radiometric calculations, data analysis, production instrument control, machine learning)
- Advanced: Python (data harvesting, data analytics), C++ (embedded systems, coursework), Atlassian (Jira, Confluence, Bitbucket), Microsoft Office (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 screening equipment, etc.
- Soldering, PCB design, basic IC design, embedded systems development, serial/GPIB communications
- Industry and academic lab experience with clean rooms, microscopes, machining tools, sample prep, etc.

LEADERSHIP/COMMUNITY EXPERIENCE AND AWARDS

- Lead/co-lead multiple STEM community outreach events including Engineering Week 2018
- Lockheed Martin Performance Excellence PMT award
- UTK Student Athlete on Varsity Tennis Team, 2013-2017 (2016-2017 Team Captain, Four-Time SEC and ITA Scholar Athlete Award, 2014 NCAA Team 'Sweet Sixteen' Appearance)
- UTK Chancellor's Honors for Outstanding Academic Achievement and Scholar Athlete, 2017
- Member of Student-Athlete Advisory Committee with 50+ hours of community service, 2015-2017

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.