## **Anuraj Singh Rawat**

Mobile : +65 96408305

Email : anuraj.rawat@u.nus.edu

Skype : anurajrawat98 LinkedIn : AnurajRawat



#### **Personal Statement**

### Internship Objectives

Seeking a position at a Startup where I can employ my strong analytical and problem-solving skills. Having had work experience in both technical engineering fields and applied sciences as well as business development and project management, I believe that I can synergize the two skill sets to effectively contribute in a fast-paced startup environment.

#### **About Me**

I love technology and am ever amazed by the ability of humans to sense, perceive and react to their surroundings. I have spent a good part of the last year developing artificial sensory devices inspired from biological systems. Gaining relevant research and corporate experience along the way both as a student researcher as well as a product development intern at the Agency for Science, Technology and Research, Singapore.

I am a believer in accessible education being an enabler to uplift human lives. I have previously interned at an edu-tech startup and am currently working on my own venture to make prototyping skills more accessible to the masses.

Having pursued a multidisciplinary education, I have tried to develop a diverse skillset. As a materials engineer I have taken part in the undergraduate research opportunities program, which has honed my lab skills and has helped me connect the dots between abstract academic knowledge and its need for conversion into realizable products. I have also worked on numerous design projects, extensively using the design thinking methodology and human centred design to formulate engineering solutions to real world problems.

Alongside my academic endeavours, my experience as a Marketing and Operations intern at Tueetor (a startup) has built my business development and customer relations skills. Skills that have made me an able communicator who thrives when working in a collaborative environment. Not shying away from leadership, I have represented the NUS Materials Science and Engineering student body as the Vice President of the Materials Science and Engineering Club planning and organizing student welfare events with efficiency and effectiveness.

During my free-time, you can either catch me playing badminton or keeping up with the latest basketball news. I also enjoy running. It keeps my mind off work and revitalizes me to keep moving forward.

If you like what you see, feel free to reach out to me. I am ready to bring my perspective and skills to the table.

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Aug 2016 - Present	National University of Singapore Bachelor of Engineering (Honours) in Materials Science and Engineering   Innovation and Design Program (Distinction)	Singapore
Aug 2017 – Present	Undergraduate Research Opportunities Program Research description: Biohybrid Materials and Devices (Research Details in Work Experience)	Singapore
Jul 2014 - May 2016	<ul> <li>Global Indian International School</li> <li>International Baccalaureate Diploma</li> <li>Subjects: Physics (7/7), Chemistry (7/7), Math (7/7)</li> <li>Overall Score: 43/45 (Top 3% Worldwide)</li> </ul>	Singapore
Work Experience		
Jun 2018 – Aug 2018	<u>A*STAR</u>   Agency for Science Technology and Research Product Development Intern	Singapore
	<ul> <li>Fluorescent based biosensors fabrication for micro/nano-packaging applications and food freshness monitoring at IMRE (Agency for Science, Technology and Research). The work is funded by EPTL, A*STAR's commercialization arm</li> <li>Iterated a new sensor design using rapid prototyping, which cut down fabrication time by nearly 50%.</li> <li>Built a simple signal processing tool using Excel and Python to automate data retrieval and experimental analysis.</li> </ul>	
Aug 2017 - Present	NUS Faculty of Engineering   Department of Materials Science and Engineering Student Researcher	Singapore
	<ul> <li>Developing and optimizing flexible electronic sensor devices with touch, thermal and light sensing by incorporating photosynthetic proteins for biomedical applications in Electronic Skin and Braille Detection.</li> <li>Designed, Fabricated and Tested the device from scratch to optimize performance.</li> <li>Co-Author of book chapter titled "Bio-photoelectrochemical Cells: Protein Immobilization routes and Electron Transfer Modes" in Photosynthetic Protein-Based Photovoltaics CRC Press, Taylor &amp; Francis Group 2018, Edition 1</li> </ul>	
May 2017 – Aug 2017	Tueetor Marketing and Operations Intern	Singapore
Jun 2015 – Jul 2015	<ul> <li>Spearheaded Tueetor's online marketing efforts to increase product outreach and carried out marketing analysis for the same to develop insights.</li> <li>Supported client management to reach out to existing customers and improve user-experience</li> <li>CERN   The European Organization for Nuclear Research Research Intern</li> </ul>	Geneva,CH
	<ul> <li>Collaborated with the Gas Based Particle Detectors group at the Compact Muon Solenoid Experiment in Geneva, Switzerland.</li> <li>Conceptualized and built Resistive Plate Chambers for muon (particle) detection.</li> </ul>	

Projects				
Sept 2017 - Present				
Jan 2018 – Present	<ul> <li>Hoberman Spheres   Metamaterial 3D- Printing</li> <li>Exploring and applying design thinking methodologies on 3D printing single structure Hoberman spheres.</li> <li>Working on 3D printing modification, CAD modelling/simulation and materials fabrication to produce auxetic Hoberman Spheres to be used new generation artificial neurosensory devices.</li> </ul>	Singapore		
Aug 2017 – Nov 2017	<ul> <li>Plas+   Intelligent Waste Solutions</li> <li>Conceptualised a smart bin solution to address the needs of government agencies rising costs in sorting and recycling house-hold plastics and waste.</li> </ul>	Singapore		
Jan 2017 – April 2018	<ul> <li>Superfarm   Zero-Waste households</li> <li>Implemented a strategy to redefine the concept of how plastics are used in the grocery shopping experience.</li> <li>Analysed user journeys and user flows to identify key pain points in the present grocery shopping experience to brainstorm, design and propose a new plastic free grocery shopping experience.</li> </ul>	Singapore		
	nts/Extracurricular Activities			
Sept 2018	<ul> <li>Falling Walls Lab   Singapore</li> <li>First runners up in this Science, Technology and Business competition.</li> <li>Invited to Berlin, Germany for the international Falling Walls Conference.</li> </ul>	Singapore		
Aug 2018 – Present	<ul> <li>External Liaison   NUS Entrepreneurship Society</li> <li>Responsible for liaising with external parties who collaborate with the NUS Entrepreneurship Society.</li> <li>Fostering the local entrepreneurship scene in Singapore through organization of workshops and events on entrepreneurship.</li> </ul>			
Aug 2016 – Aug 2018	<ul> <li>Vice President   NUS Materials Science and Engineering Club</li> <li>Served as the Marketing Director in my first year and was primarily responsible for marketing outreach and sponsorship management.</li> <li>Assumed duties of Vice President the following year managing the club's external relations concerning student welfare, industry collaboration and event organization.</li> </ul>	Singapore		
Aug 2017 – Feb 2018	Executive Committee Member   Innovation and Design Program Makers Club  • Organized prototyping workshops for students in the Innovation and Design Program dealing with hardware programming and Computer Aided Design	Singapore		

## **Skill Sets & Proficiency**

**Prototyping** Arduino Prototyping **Proficient** 

Computer Aided Design - Autodesk Fusion Intermediate Laser Cutting Intermediate

Soldering Intermediate

Research **Technical Report Writing Proficient** 

Sputtering Techniques **Proficient** Spin/Dip Coating **Proficient** Fluorescence Microscopy **Proficient** Scanning Electron Microscopy Intermediate X-Ray Diffraction Microscopy Intermediate

Transmission Electron Microscopy **Basic** 

**Programming** C/C++ Basic

Pvthon Basic **MATLAB** Basic

Soft-Skills Design Thinking **Proficient** 

**Project Management Proficient Business Development Proficient Public Speaking Proficient** Lean Methodology Intermediate Intermediate

Marketing

Office Productivity Microsoft Office **Proficient** 

Synology CMS Intermediate

# **Language Proficiency**

**Spoken** English - fluent; Hindi - fluent

Written English - Highly competent; Hindi - competent