

Vishnu Saran Udayagiri (Singaporean)

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Portfolio: <https://vishnusaran.wixsite.com/portfolio>

Work Experience

Jan '18 – May '18 | Research Technician Intern | Sepion Technologies | Berkeley

- Synthesized polymer inks and roll coated them into polymer separators
- Construct coin-cell batteries integrated with Sepion Polymers
- Test and characterize the performance of the coin-cell batteries

Feb '17 – Mar '18 | Undergraduate Research Opportunities Programme (UROP) | Research Intern | Singapore

- Collaborated with research mentor to enhance bio-hybrid solar cells through optimization of materials
- Experimented with various mechanisms to guide the solar energy conversion process
- Co-Author of a review paper, a research paper and a book chapter pertaining to bio-hybrid solar cells

Aug '17 – Jan '18 | Research Attachment Chemical and Biomolecular Engineering | Research Intern | Singapore

- Analyzed the various principles governing organic nanocrystals and their bio-luminescent properties
- Performed experiments to test different parameters required to achieve optimal optical enhancement
- Co-authored a book chapter pertaining to nanocrystals with crystalline enhanced and induced emission

May '17 – Aug '17 | honestbee | Start-Up Intern | Singapore

- Implemented changes to processes to enhance sales and efficiency and orders increased by 150%
- Obtained customer insights by interviewing customers and utilizing customer analytics tools
- Performed data analytics using Looker (Analytics Software) and created a marketing dashboard

Feb '17 – Mar '17 | Singapore Institute for Neurotechnology (SINAPSE) | Research Intern | Singapore

- Evaluated current progress in the bio-electronics field through the reviewing of numerous research papers
- Performed experiments related to silk-based electronics such as silk extraction and purification
- Researched on existing polymer-based electronics and how similar strategies can be implemented with silk

Aug '16 – Jan '17 | Mooder | Start – Up (Business Development Intern) | Singapore

- Implemented growth hacking strategies to successfully increase membership rates by 15%
- Utilized Google Analytics to track performance of company and enable Search Engine Optimization
- Tackled problems faced in effective advertising

Education

Aug '15 – Present | National University of Singapore (NUS)

- B.Eng (Hons. Distinction) Material Science and Engineering
- Design-Centric Programme (DCP) | Engineering Innovation Design Programme

Jan '07 – Dec '12 | Anglo- Chinese School Independent | High School

- 6 Distinctions | International Baccalaureate Diploma Programme

Scholastic Achievements/ Extracurricular Activities

Singapore Frontier Challenge 2017 (2nd Runners Up) | Renewable Energy Design Challenge

Faculty of Engineering-Undergraduate Research and Innovation Award 2017 (Merit) | 3D Printed bio-hybrid solar cells

Engineering4Good (Champions) | Image Recognition drive safety monitor

Design-Centric Programme (DCP) Safety Challenge (2nd Prize) | Safety Design Challenge

Second Author of "Emerging role of Band – Structure approach in Bio-Hybrid Light Harvesters: A path beyond Biochemistry" in the Advanced Functional Materials Journal

Co-Author of "A Flexible Photosynthetic Electronic Skin for Tactile Sensing, UV-Sensing and Energy Harvesting"

Co-Author of "Routes of Immobilization of Photosynthetic Proteins on Electrodes"

Co-Author of "Nanocrystals with crystallization – induced or enhanced emission"

Skills

Prototyping 3D Printing | Design Thinking | Soldering | Arduino | AutoDesk Fusion360

Laboratory Skills Thermal Analysis | Magnetic Material Analysis | Scanning Electron Microscopy Analysis | Mechanical Failure Analysis | Glove Box Usage | Roll Coating