



Viduranga Shenal Landers

HIGH SCHOOL GRADUATE

Wattala, Sri Lanka | Date of birth : 27/02/2002 | Nationality : Sri Lankan

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A highly motivated student with strong leadership qualities who is constantly seeking new challenges to push the limits of his knowledge. Contributes to the development of the space industry in Sri Lanka by initiating space projects for local space communities. Actively seeking for academic and research opportunities in astronautics.

Experience

Co-Lead - **HOPE – ACHIEVED** | **SEPG** | **Space Generation Advisory Council**

- Co-leading a research team in the design of a CubeSat mission to Uranus

Remote – Int'l

Jan 2023 - Present

Project Lead - **Nexus Aurora Corporation** ∞

- Leading the research and development of a planetary penetrator device (Soil Penetration Darts – SPD) to reduce the cost of obtaining deep soil samples from the Moon

Remote - DE, USA

Aug 2022 - Present

Team Lead - Remote Student Team - **GLEE** ∞

- Remotely developing two LunaSats for the GLEE, an Artemis Student Challenge by NASA

Western, Sri Lanka

May 2022 - Present

Writer / Programmer (Part Time) - **Fiverr**

- Working on assignment writing, data science and programming projects for a local network

Remote - Sri Lanka

Mar 2022 - Present

Systems Engineering Group Lead - **Robotics and Rover Division** | **SEDS Sri Lanka** ∞

- Introducing and implementing systems engineering principles to ongoing projects
 - Taprobane v3.0: 17th Place in the European Rover Challenge 2022

Sri Lanka

Jan 2022 - Present

Lead - **Lunarbot** ∞

- Developing innovative instruments and subsystems for planetary rovers
 - SAWS: A grouser adjustable wheel system for space exploration rovers
 - SWORD: An extendable drilling mechanism for deep drilling on the lunar surface
 - SPIDER: Runners-up Lunar rover concept at the Singapore Space Challenge 2021

Western, Sri Lanka

Feb 2020 - Present

Structures & Thermal Subsystem Lead - **RAISE - ACHIEVED** | **SEPG** | **SGAC** ∞

- Designed the structures & thermal systems of a Mercury sample return mission concept

Remote – Int'l

Jan - Sep 2022

Coordinator - **SEDS Juniors** | **SEDS Sri Lanka** ∞

- Organized local space events and managed a group of 1000+ pre-university students

Sri Lanka

Mar 2021 - Jun 2022

Technical Assistant - Part Time - **Deluxe Traders Pvt. Ltd**

- Aided repair and configuration of 100+ work laptops

Wattala, Sri Lanka

Oct 2019 - Aug 2020

Education

Secondary Education - **D. S. Senanayake College (DSSC)**

GCE Advanced Level: 2 A passes, 1 B pass and 1 C pass (Physical science stream)

SAT Reasoning Test: 1490 (790 Math & 700 EBRW)

GCE Ordinary Level: 9 A passes

Colombo, Sri Lanka

Jul 2019 - Aug 2022

Activities - • President - Astronomy Club

• Secretary - Social Services Association

• Quiz Captain - Science Association

• Executive Committee - Aeronautical Club

Jan 2017 - Apr 2019

Introduction to Quantum Computing - **The Coding School** | **Qubit x Qubit** | **IBM**

- One year program in quantum computing (Grade: 100/100)

Online

Oct 2020 - May 2021

Certified Network Security Specialist (CNSS) – **International Cyber Security Institute (ICSI)**

- Certificate course on Network Security administration

Online

May 2020 - Jul 2020

JAVA Application Development – **University of Colombo – School of Computing**

- Three months training program on JAVA SE

Colombo, Sri Lanka

Jan - Mar 2019

Summer Schools & Workshops

Summer School in Planetary Sciences - University of Science and Technology of China	31 Jul - 06 Aug 2022
Sagan Summer Workshop 2022 - NASA Exoplanet Science Institute Caltech	25- 29 Jul 2022
Qiskit Global Summer School 2022 on Quantum Simulations - IBM	18 - 29 Jul 2022
Data Science Masterclass - Datathink Professional	27 Jun - 28 Jul 2022
Qiskit Global Summer School 2021 on Quantum Machine Learning - IBM	12- 23 Jul 2021
CubeSat Development and Ground Station Control - SEDS Pera IEEE MTT-S Orion Space	16 May -20 Jun 2021
QBronze Diploma in Quantum Computing and Programming QTunisia , QWorld	Oct - Nov 2020
CubeSat Workshop and Lecture Series - SEDS Pera Orion Space University of Peradeniya	7 - 10 Mar 2020

Awards

Finalist -17th Place	European Rover Challenge (<i>Team</i>)	2022	ERC
Advanced Achievement	IBM Quantum Challenge	2021, 2022	IBM
Top Scorer	IBM Quantum Challenge	2021 - Spring	IBM
Distinction Award	Singapore Space Challenge 2021 (<i>Team</i>)	2021	SSTL
High Distinction	Sri Lankan Mathematics Competition	2021, 2019, 2018	SLOMF
Global Nominee	NASA Space Apps Challenge 2020 (<i>Team</i>)	2020	NASA
Silver Award	Hong Kong International Mathematics Olympiad Heats	2020	HKIMO
Gold Medal	Sri Lankan Astronomy & Astrophysics Olympiad	2019	IPSL

Skills

Programming	Python JAVA (basic) QASM (basic) Data Analysis Machine Learning (basic)
Other Technical	CAD/FEM (SolidWorks, SolidEdge, Inventor) DEM (EDEM, PFC) Video Editing (After Effects)
Soft Skills	Leadership Project Management Teamwork Research Writing Science Communication
Languages	Sinhala (Native) English (C1 Level)

Publications

Soil Penetration Darts (SPDs) for Deep Soil Sampling	Paris, France
73rd International Astronautical Congress Landers V.*, Pathirana O., et al	18 – 22 Sep 2022
Mercury Sample Return Mission Design Utilizing Innovative Systems and Technologies	Paris, France
73rd International Astronautical Congress Rao S.*, Landers V., et al	18 – 22 Sep 2022
A Self Adapting Wheel System	Dubai, UAE
72nd International Astronautical Congress Landers V.*, Pathirana O., Pieris J., Ranasinghe S.	25 – 29 Oct 2021

Patents

A Fully Autonomous Extendable Drill - LKA 21652 (<i>Applied</i>)	Mar. 2021
A Wheel that includes Autonomous Adjustable Grousers – LKA 21653 (<i>Applied</i>)	Mar. 2021

Volunteering

Contributor & Event Organizer	2016 - Present
• Annual Family CSR Projects for donating educational materials to rural schools	
Citizen Scientist - Asteroid Search Campaigns by the IASC and Pan-STARRS	2020 – 2021
• Provisional Asteroids discovered: 2021 CH23, 2020 TL54, 2020 QF3, 2020 PX12	
Mentor - School Astronomical Society (NASA Educator Professional Development: 7 credits)	2019 - 2021
Chief Organizer & Mentor - Orbit'21 Asteroid Search Campaign	Mar. 2021
Judge & Mentor - EXODES 2K20 – Intra School Water Rocket Competition	Feb. 2020
Organizing Committee Member	
• JUNIOR ASTRO NIGHT 2021 – Astronomy workshop by SEDS Sri Lanka	Nov. 2021
• ESPER'20 – Annual Inter School Science Quiz Competition	Sep. 2020
• NEEDS FOR NEEDY – book donation camp at Passara Madya Maha Vidyalaya	Dec. 2019
Blood Donor	2020 - Present