

# Viduranga Landers

#### HIGH SCHOOL GRADUATE

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

in viduranga-landers | ⇔ vidurangalanders.github.io

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	Remote – Int'l
<ul> <li>Co-leading a research team in the design of a CubeSat mission to Uranus</li> </ul>	Jan 2023 - Present
Project Lead - Nexus Aurora Corporation	Remote - DE, USA
• Leading the research and development of a planetary penetrator device (Soil Penetration	Aug 2022 - Present
Darts – SPD) to reduce the cost of obtaining deep soil samples from the Moon	
Team Lead - Remote Student Team - GLEE  ∞	Western, Sri Lanka
• Remotely developing two LunaSats for the GLEE, an Artemis Student Challenge by NASA	May 2022 - Present
Writer / Programmer (Part Time) - Fiverr	Remote - Sri Lanka
• Working on assignment writing, data science and programming projects for a local network	Mar 2022 - Present
Systems Engineering Group Lead - Robotics and Rover Division   SEDS Sri Lanka •••	Sri Lanka
<ul> <li>Introducing and implementing systems engineering principles to ongoing projects</li> </ul>	Jan 2022 - Present
➤ Taprobane v3.0: 17 <sup>th</sup> Place in the European Rover Challenge 2022	
Lead - Lunarbot ••	Western, Sri Lanka
<ul> <li>Developing innovative instruments and subsystems for planetary rovers</li> </ul>	Feb 2020 - Present
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	5
Structures & Thermal Subsystem Lead - RAISE - ACHIEVED   SEPG   SGAC ••	Remote – Int'l
• Designed the structures & thermal systems of a Mercury sample return mission concept	Jan - Sep 2022
Coordinator - SEDS Juniors   SEDS Sri Lanka 🕶	Sri Lanka
• Organized local space events and managed a group of 1000+ pre-university students	Mar 2021 - Jun 2022
Technical Assistant - Part Time - Deluxe Traders Pvt. Ltd	Wattala, Sri Lanka
<ul> <li>Aided repair and configuration of 100+ work laptops</li> </ul>	Oct 2019 - Aug 2020
Education	
Secondary Education - D. S. Senanayake College (DSSC)	Colombo, Sri Lanka
	14/2010 14/2 2022

Aided repair and configuration of 100+ work laptops	Oct 2019 - Aug 2020
Education	
Secondary Education - D. S. Senanayake College (DSSC)	Colombo, Sri Lanka
GCE Advanced Level - Physical Science Stream	Jul 2019 - Aug 2022
• 2 A passes, 1 B pass and 1 C pass	
GCE Ordinary Level	
9 A passes	
Activities - • President - Astronomy Club • Secretary - Social Services Association	Jan 2017 - Apr 2019
<ul> <li>Quiz Captain - Science Association</li> <li>Executive Committee - Aeronautical Club</li> </ul>	)
Introduction to Quantum Computing - The Coding School   Qubit x Qubit   IBM	Online
One year program in quantum computing	Oct 2020 - May 2021
Certified Network Security Specialist (CNSS) – International Cyber Security Institute (ICSI)	Online

• Certificate course on Network Security administration

JAVA Application Development – University of Colombo – School of Computing

• Three months training program on JAVA SE

Jan - Mar 2019

May 2020 - Jul 2020

Colombo, Sri Lanka

#### 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 -17 <sup>th</sup> Place	European Rover Challenge (Team)	2022	ERC
Advanced Achievement	IBM Quantum Challenge	2021, 2022	IBM
Top Scorer	IBM Quantum Challenge	2021 - Spring	IBM
Distinction Award	Singapore Space Challenge 2021 (Team)	2021	SSTL
High Distinction	Sri Lankan Mathematics Competition	2021, 2019, 2018	SLOMF
Global Nominee	NASA Space Apps Challenge 2020 (Team)	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 | English

## 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 (Applied)	Mar. 2021
A Wheel that includes Autonomous Adjustable Grousers – LKA 21653 (Applied)	Mar. 2021

### Volunteering

Contributor & Event Organizer	2016 - Present
<ul> <li>Annual Family CSR Projects for donating educational materials to rural schools</li> </ul>	
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