

2023 MDN EDUCATION OUTREACH PROGRAM

About us

Monash DeepNeuron (MDN) is an Engineering and I.T student team based in Monash Clayton aspiring to improve the world with Artificial Intelligence (AI) and High-Performance Computing (HPC). We aim to use AI as a <u>safe,</u> <u>ethical, and transparent</u> tool to solve existing common societal issues. We are the only Australian student team that focuses on AI and HPC.

Our team consists of over 100 students from a diverse range of disciplines such as Computer Science, Engineering, Commerce, Arts and Law. As a team, we undertake a variety of different projects varying from Aerospace, Science, Medicine, Gaming to Psychology.

Our team consists of five main branches which include Deep Learning, HPC, Business, Operations, and Education. Students gain first-hand experience in learning about A.I and HPC as well as building a network that extends beyond their degrees



Contents

	About Us
	Outreach at MDN
2	The Outreach Mission
3	Our Programs
5	Meet the Team
7	Contact Us



Outreach at MDN

Who are we?

The Outreach team is currently managed by Shajana Pathirana Wasam, and coordinated by our six Outreach Coordinators: Justin Thiha, Chloe Shin, Sanidi Palpita, Selena Chan, Amy Liu and Matthew Le-Ack.

The team shares a keenness to not only discover more about the wonderful world of A.I and to build our technical skills, but to also share our knowledge with our community.

INTRODUCTION TO AI

mac.

We are all individuals brought together by our passion for Artificial Intelligence and Deep-Learning, combined with our common goal to inspire the younger generations.



The Outreach Mission

MISSION STATEMENT

We believe that every student in the world is entitled to learn and expand their horizons. It is our endeavour to make our workshops and resources as accessible to all. 0

Understanding that every student learns and thinks differently, we have developed an educational program that can introduce new ideas and expand on what individuals already know about Al.

Through the knowledge and power of Al, we want to empower those around us to do good.

OUR FOUNDING PRINCIPLES

The following principles is what Outreach at MDN was founded on:

- Providing Accessibility
- Raising Awareness
- Inspiring the Next Generation

"Increasing intelligence - not just artificially"

Our programs

The Outreach has procured a quality repertoire that focuses around the essential A.I technologies of the future.

0

Our current offerings:

- Deep Learning Series
- Python Basics Series

Each workshop series goes into depth from theory to guiding students in practical exercises. We offer choice between our offerings as well as flexibility to work within a classroom's curriculum.

Details of each workshop are provided in the next page.



Our programs

Python Basics Series

In this 3-part series, students will be exposed to the basics of programming using Python.

With applications in data science, software, and A.I, students will have a launchpad in Python basics that can springboard them into the world of programming and A.I technologies.

In undertaking this program, we hope students will contemplate a pathway in STEM as well as leave with an invaluable skill.

Workshop parts:	3 instalment series
Content covered:	Maths & Variables Lists & Loops Functions
Platform used:	Google Collab Notebook



Deep Learning Series

This series aims to provide a broad understanding of Artificial Intelligence (AI) and cultivate an engaging learning environment for students. It encourages them to ponder AI's everyday applications and the ongoing efforts to enhance it.

Al is a rapidly evolving field that holds immense transformative potential, inspiring and motivating young minds to explore its limitless possibilities.

Workshop parts:

Content covered:

Platform used:

3 instalment series

Theory of A.I | Practical models | GANs

Google Collab Notebook



poor parallel program. Not much time spent in comp

Meet the team



NICHOLAS CHAN | EDUCATION LEAD

Having joined MDN in Semester 2 of 2022 as a 1st Year student, Nicholas is now the Education Lead as a 2nd Year student. He studies a double degree of Computer Science and Commerce at Monash, majoring in Data Science and Economics respectively.

With a passion for teaching and inspiring young individuals, he joined MDN with high aspirations to raise awareness about A.I and Deep Learning, seeking to empower those around him to do similar. He is now focused on building the MDN Eduction brand of A.I, Deep Learning and HPC.

SHAJANA PATHRIANA WASAM | OUTREACH MANAGER

This is Shajana, his friends call him Sarge. He is a dedicated and passionate third-year student studying a double degree in Engineering (Mechanical) and Commerce (Finance) at Monash University. Sarge has been part of Monash DeepNeuron for over a year, and he initially started off as a Coordinator.

Sarge has taken part in managing, leading and curating workshops on the areas of Deep Learning, Machine Learning and AI to high school students. His passion in team building, learning, and AI was what made him join MDN. Sarge's dream is to start his own automotive manufacturing company.



AMY LIU | COORDINATOR

Amy is a second-year Commerce and Computer Science student majoring in econometrics and Advanced Computer Science at Monash University. Her passion lies in leveraging artificial intelligence effectively and ethically to address existing societal challenges to build a brighter future.

Amy actively seeks out opportunities within the university to immerse herself in different experiences. Amy joined MDN in April 2023 while continuing her studies to pursue her ambitions and to further develop her technical and communication skills through practical application.



CHLOE SHIN | COORDINATOR

Chloe is a 1st Year Engineering and Computer Science student, planning to specialise in Electrical and Computer Systems Engineering. She has a passion for helping other individuals learn and understand new things, and an extensive interest for Artificial Intelligence.

Chloe wants to contribute to fostering a society in which all users of Al are protected and informed about its benefits and downfalls, and it is used in a way that is safe, ethical and responsible. In the future, she wants to use her skills and knowledge to work on meaningful, sustainable technology that improves the lives of others in need.





A poor parallel program

SELENA CHAN | COORDINATOR

Selena is a motivated and passionate fifth year student studying a double degree in Engineering (Electrical and Computer Systems) and Biomedical Science. Her curiosity and interest in the world of Artificial Intelligence led her to join MDN in April of 2023. She joined the team with hopes of not only learning more about AI, but also as an avenue to encourage awareness to younger generations who will eventually be the future of this technology.

Selena envisions her future career to encapsulate aspects of both science and technology, with a passion for using the advancing technology to create better health outcomes and quality of life for patients.

SANIDI PALPITA | COORDINATOR

Sanidi is an enthusiastic, passionate and dedicated third year student in Engineering (Electrical and Computer Systems) and Commerce (Finance). She is fascinated by the world of AI, a primary reason for her joining MDN. She hopes to be part of a career that can use technology and innovation to improve the world around her.

She wants to use her knowledge to create better outcomes for the environment and for the people living in it. For Sanidi, MDN Outreach has been an exciting and rewarding new opportunity, and she has gained invaluable skills along the way - including improving her communication, public speaking and organisational skills.



MATTHEW LEE-ACK | COORDINATOR

Matthew has always had a keen interest in electronics and programming since a young age, which has led him to join Monash DeepNeuron to further his knowledge while also spreading awareness of the wonders of A.I. Matthew is currently studying engineering at Monash and specialising in the mechatronics stream of engineering.

Matthew is not entirely sure what he wants to be when he gets out of university, but he does have a great interest in teaching people and may include it in his career later in life. It is also this interest in teaching that drove Matthew to join the outreach branch of DeepNeuron.



JUSTIN THIHA | COORDINATOR

With a passion for education and tutoring, Justin is always looking for ways to empower teachers and students habitually and academically. He is in his 3rd year of studying Software Engineering and Finance.

Justin joined MDN in the second half of 2023, and has since been working on projects that aim to harness the potential of AI to revolutionise education, and hopes to share this technology to help bridge the knowledge gap between the relevance of AI and the next generation.



Contact us



Keen to find out more? Contact one of us!

Nicholas Chan **Education lead**

Nicholas oversees activities concerning the Outreach Team and Law & Ethics Committee at MDN's executive level.



education@deepneuron.org

0411 141 488

Shajana Pathirana Wasam | **Outreach Manager**

Shajana is responsible for the management of MDN's Outreach Team at the Secondary and Tertiary levels.



outreach@deepneuron.org

0432 906 541

Look at our socials



@monashdeepneuron

Visit our website: https://www.deepneuron.org/

1

