



AI STUDENT OUTREACH PROGRAMME HANDBOOK

Version V1.0

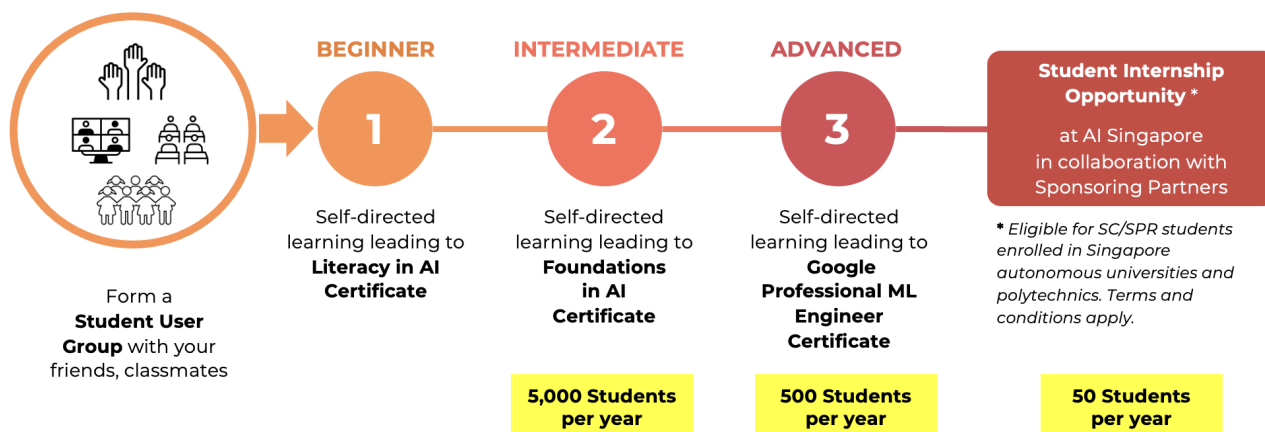
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ABOUT

AI Singapore (AISG)¹ has launched “AI Student Outreach Programme”, which aims to promote AI literacy and proficiency among students from local government subsidized Secondary Schools, Integrated Programme (IP) Schools, Junior Colleges, Institutes of Technical Education, Polytechnics and Universities. This programme is supported by Singapore’s Ministry of Education (MOE).

GOALS

AI Student Outreach Programme has 3 levels to suit every student’s AI learning appetite. Each level of completion offers an industry-recognized certification for students to showcase their achievements. Singapore university and polytechnic students who attained level 3 will have a chance to intern alongside AI Singapore’s AI Engineers and AI Apprentices on real-world projects.



Through the 3 levels, the students will gain:

- Programming skills like Python and/or R;
- Critical thinking skills needed to navigate and adapt to the changing world; and
- Practical experience and knowledge in AI projects.

¹ AI Singapore is a national AI programme launched by the Singapore National Research Foundation (NRF) to anchor deep national capabilities in Artificial Intelligence (AI) thereby creating social and economic impacts, grow the local talent, build an AI ecosystem, and put Singapore on the world map.

Level 1

Level 1 promotes self-directed learning leading to the Literacy in AI Certification.

Literacy in AI Certification

Objective	To introduce learners into the world of Machine Learning and explore the topic of ethics in AI
Modules	AI Basics (Machine Learning for Everyone), AI Ethics, Hands-on Practice (Orange)
Estimated duration	5 hours
Learning Resources	<ul style="list-style-type: none">• Self-directed learning (online)• Access to AISG Community Groups to support students' learning• Access to Ask-Me-Anything sessions to support students' learning, networking and career development
Recommended Pre-Learning	AI for Everyone (AI4E)®
Certificate issued	AI for Industry (AI4I)® – Literacy in AI Certificate

Eligibility

- Full-time students currently enrolled in a local government-subsidized Secondary School, IP Schools, Junior Colleges, Institutes of Technical Education, Polytechnics and Universities

Application

- Applications open all year round.
- Form a student user group (SUG) with a minimum of 10 members from the same institution. New members can be added subsequently.
- Minimum of 70% of members must be Singapore Citizens (SC) and/or Singapore Permanent Residents (SPR).
- SUG members to create LearnAI Free Membership accounts. SUG leader to register the SUG here: <https://learn.aisingapore.org/student-user-group-application/>. SUG members must use their school email address.
- SUG leader to accept Terms and Conditions during the online application:
 - I declare that the information provided in this application is true and accurate.
 - I declare that I will be responsible for all communications between AI Singapore and SUG.
 - I confirm that there is a minimum of 10 members from the same institution to start the SUG. New members can be added subsequently.
 - I agree that the purpose of SUG is to promote the use of artificial intelligence in their respective fields.
 - I confirm that 70% of the members are Singaporeans and/or Singapore Permanent Residents (SPR).
 - I acknowledge that SUG is encouraged to organize at least one (1) AI workshop per year. Acknowledge AI Singapore support in marketing collateral. All logo display has to be approved by AI Singapore. Obtain logo display requirements from AI Singapore when required.
 - I acknowledge that SUG can claim up to at most 2 workshops. Each workshop claim will be capped at \$100 nett.
 - I acknowledge that SUG is encouraged to contribute at least one (1) social media article per year and tag AI Singapore.
 - I understand that the personal data collected will be used for the purposes of managing and administering the programme and may be disclosed to National University of Singapore, AI Singapore, supporting Singapore Government bodies of AI Singapore and AI Singapore's partners.
 - I shall defend, indemnify, and hold harmless AI Singapore, its subsidiaries, officers, directors, employees, agents, affiliates and partners from and against any claim, demand or legal proceeding, including legal expenses, made by third party or arising from or out of the applicant's breach of the terms and conditions herein.
 - AI Singapore reserves the right to make changes to the schedule, content, etc without prior notice.

- I adhere to the code of conduct published on the AI Singapore Community website.

Benefits

- AISG will provide reimbursement* for workshops organized by the SUG. Up to 2 workshops per calendar year and capped at \$100 per workshop (inclusive of GST).
*Subject to approval.
- Claim within 1 month from the event date. AISG will do the verification within 21 working days.
 - List of supporting documents to be provided:
 - 1 actual event photo
 - Event agenda
 - List of claimable items
 - Supporting receipts of expenses (soft copy)
 - Expenses can be for:
 - Food & Beverages (including delivery charges)
 - Venue rental
 - Marketing collaterals (e.g. posters, factsheets, eDM etc)
 - Materials for workshops/talks on actual day (e.g. stationeries, writing materials for discussion etc)
 - Prizes, doorgifts, tokens-of-appreciation
 - Transportation fees, Courier services
 - Parking coupons
 - Event logistics

Level 2

Level 2 promotes self-directed learning leading to the Foundations in AI Certification.

Foundations in AI Certification

Objective	To help learners understand and use AI appropriately and be able to program basic AI and data applications in Python
Modules	Introduction to Python, Libraries and Data Manipulation, Exploratory Data Analysis, Statistical Thinking, Supervised Learning, Unsupervised Learning, Deep Learning, Other Programming Languages and Tools to Learn, and Data Science and AI in the Real World
Estimated duration	140 hours
Learning Resources	<ul style="list-style-type: none">• Self-directed learning (online)• Access to AISG Community Groups to support students' learning• Access to monthly Ask-Me-Anything sessions to support students' learning, networking and career development
Pre-requisite	Literacy in AI Certification (Level 1)
Certificate issued	AI for Industry (AI4I) [®] – Foundations in AI Certificate

Eligibility

- Only for SUG members.
- Must have completed Literacy in AI Certification (Level 1).

Application

- Applications open all year round.
- SUG leader to apply on behalf of the SUG members online. Application form will be released on 31 May 2022. Check <https://aisingapore.org/student-outreach-programme/> under Level 2.
- Minimum of 10 SUG members per application. New members can be added subsequently.
- SUG leader will receive coupon codes and distribute them to the SUG members. Validity of coupon code is 1 month, starting from the form submission date.
- SUG members will use the coupon code to upgrade themselves to LearnAI premium membership.
- SUG members will get the DataCamp access code in their invoice to upgrade their DataCamp free account to premium account to have access to the content required.
- Skillsfuture credits and PSEA do not apply.

Benefits

- Each SUG member will be eligible for a discounted LearnAI Premium membership fee worth S\$105 + prevailing GST to enroll in Foundations in AI course.
- Get 100% reimbursement of the membership fee if he/she completes the Foundations in AI course within 6 months from the start date.
- Send a request to learn@aisingapore.org for reimbursement of S\$105 + prevailing GST. AISG will do the verification within 14 working days.

Level 3

Level 3 promotes self-directed learning leading to the Google Professional Machine Learning Engineer Certification.

Google Professional Machine Learning Engineer Certification

Objective	Google Professional ML Engineer exam assesses student's ability to: <ul style="list-style-type: none">• Frame ML problems• Architect ML solutions• Design data preparation and processing systems• Develop ML models• Automate and orchestrate ML pipelines• Monitor, optimize, and maintain ML solutions
Learning Resources	<ul style="list-style-type: none">• Self-directed learning (online)• Coursera Plus and Qwiklabs• Access to AISG Community Groups to support students' learning
Estimated duration	Refer to Google's cloud.google.com/certification/machine-learning-engineer
Pre-requisite	Foundations in AI Certification (Level 2)
Certificate issued	Google Professional Machine Learning Engineer Certificate

Eligibility

- SUG members or any non-SUG SC/SPR full-time students from local government subsidised Secondary Schools, IP Schools, JCs, ITE, Polytechnics and Universities.
- Minimum age of 16 years old.
- Must have completed Foundations in AI Certification (Level 2).

Application

- Students to fill-up Level 3 Eligibility Form for eligibility check. There are 2 application periods every year:
 - 1 January to 31 January
 - 1 August to 31 August
- Successful applicants will be notified via email.
- Students to complete Google Professional Machine Learning Engineer Certification and reimburse up to US\$200 (one-time) for the exam fee, within 12 months from the successful application email notification date. AISG will only reimburse the first 500 successful applicants per year.
- Students may also claim reimbursement for 1-year subscription fee (US\$399) to Coursera Plus and US\$100 Qwiklabs credits as long as the receipt dates are within 12 months prior to the Google Professional Machine Learning Engineer Certification's date of issue.
- Students must have an active LinkedIn account and join AISG Student Outreach LinkedIn Group.

Benefits

- 1-year subscription to Coursera Plus (US\$399) and US\$100 of Qwiklabs credits to accumulate the required knowledge and skills to undertake the Google Professional Machine Learning Engineer Certification.
- Upon completion of Google Professional Machine Learning Engineer Certification and proof of certification, students will be fully reimbursed for the certification fees.
- Send a request to learn@aisingapore.org for reimbursement. AISG will do the verification within 21 working days. Attach supporting documents:
 - Foundations in AI Certificate
 - Google Professional Machine Learning Engineer Certificate
 - Coursera Plus receipt (if applicable)
 - Qwiklabs receipt (if applicable)

AISG Student Internship Program

AISG Student Internship Program (in collaboration with Sponsoring Partners)

3 to 9 months paid internship with AISG in collaboration with sponsoring partners where successful applicants will work alongside AISG's AI engineers and AI apprentices on real-world industry projects with deployment deliverables.

Internship opportunities are subjected to the availability of sponsoring partners.

Eligibility

- Must have completed both Foundations in AI Certification and Google Professional Machine Learning Engineer Certification.
- Only for Singapore Citizen and Singapore Permanent Resident full-time students*
- Only for matriculated students* at the 5 Polytechnics and the 6 Autonomous Universities.
 - Singapore Polytechnic (SP)
 - Ngee Ann Polytechnic (NP)
 - Nanyang Polytechnic (NYP)
 - Temasek Polytechnic (TP)
 - Republic Polytechnic (RP)
 - National University of Singapore (NUS)
 - Nanyang Technological University (NTU)
 - Singapore Management University (SMU)
 - Singapore University of Technology and Design (SUTD)
 - Singapore Institute of Technology (SIT)
 - Singapore University of Social Sciences (SUSS)

* Sponsoring partners may impose further Terms and Conditions as part of stipend allowance criteria (such as citizen requirements, education levels etc).

Application

- Application period will be announced on AISG website and via emails to eligible students.
- Students will submit the application form with their CV and supporting documents.
- Successful applicants will be shortlisted for interviews with AISG and sponsoring partners.

Benefits

- Interns will be paid up to S\$2,000 monthly stipends, subjected to sponsoring partners' terms and conditions.

AISG Student Hackathon

The yearly hackathon brings together full-time students from local schools to come up with new and innovative uses of Artificial Intelligence. Students will use AISG AI Bricks to build Natural Language Processing (NLP), Computer Vision (CV) and Robotic Processing Automation (RPA) applications to solve real-world problems identified by the students.

Participation is optional and does not affect the eligibility of students applying for Level 2 and 3 and the Student Internship Program.

Through this event, we hope to encourage:

- Critical and creative thinking skills needed to navigate and adapt to the changing world
- Increase the awareness of current and possible future issues of the use of AI
- Increase applications of AI technology
- Active involvement in shaping their future using AI technology

Eligibility

- This annual Hackathon is open to full-time students from local government subsidized Secondary Schools, IP Schools, JCs, ITE, Polytechnics and Universities.
- Students must be SUG members and minimally complete Level 1.

Application

- Application period will be announced on AISG website and via emails to eligible students.
- Students may sign-up as Individual or Team participants.
- Sign-up details will be provided closer to date.

Prizes

- The winning teams will receive prize monies from AI Singapore.