

Introduction

# MSc Cybersecurity Program@NTU

Program Directors: Dr Tay Kian Boon, SCSE Prof Guo Jian, SPMS



### Introduction & Welcome Everyone

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#### Introduction & Welcome Everyone

- We are happy to announce our upcoming 3<sup>nd</sup> batch NTU MSc Program in Cybersecurity this coming Aug 2024!
- It's a joint program offered by NTU 2 great schools:
  - SCSE (School of Computer Science & Engineering)
  - SPMS (School of Physical & Mathematical Sciences)
- Instructors come from these TWO schools and from industry

### Strengths of this Program

- We have sourced for the most important modules to be taught by instructors from SCSE & SPMS, and also from industry experts
- You have chance to learn not only core cyber-skills BUT ALSO hot topics like blockchains & Cryptocurrency!
- We have received letters of support for our program from
  - PAYPAL
  - ALIBABA

Practical 3-4.5 months Industrial attachment after coursework or Project\*

#### Minimum Requirement to graduate

- Program has 13 modules, excluding IA
- Pass 10 modules (4 core, 6 electives) OR
- Pass 8 modules (4 core, 4 electives) plus capstone
- Capstone 2 different ways to fulfill it
  - Pass an Industrial Attachment (IA) program with external companies (after clearing coursework requirements) OR
  - Project with faculty in NTU
- Candidature Period (flexible duration)
  - 1-2 years for FT students
  - 2-4 years for PT students

# 4 CORE MODULES (compulsory)

- 1. Computer Security
- 2. Application Security
- 3. Cryptography
- 4. Security & Risks Management

#### Variety - 9 Electives (choose 4) -not all offered at same time

Network Security	Malware
Cyber Physical Systems Security	Forensics
Software Security	Blockchains & Cryptocurrency
Security Monitoring & Threat detection	Privacy Preserving Technologies & Security in Al
Topics in Crypto & Cyber Security	

#### **Industrial Attachment (FT students)**

- Students will undergo industrial attachment with companies or NTU Corp Labs upon completing their coursework requirement
- Length 3-4.5 months depending on company's requirement
- Some students are sponsored by their companies. They will be given choices to do IA with their own company should their company want them to return to serve.
- We will give a list of companies that are participating in our IA program to students after they are admitted to program.
- Students can also source for opportunities directly from companies

# Industrial Attachment or Project (PT students)

- PT students who need to return to work for their companies can do their IA with their company (must be in cybersecurity areas).
- PT students who need to serve their companies after coursework will have to do Project with our faculty during their studies
- Idea behind is fastest period to graduate (including attachment or project)
  will remain roughly the same, 15 months for both IA students and Project
  students, & also students who opt not to do capstone

#### **Assessment**

- Assessment for each course will be based on a final exam and/or continuous assessment and/or mini project during the conduct of the course.
- The industrial attachment will be assessed by our faculty members with inputs from the industrial collaborating partners.

### **Admission Requirements**

- A good bachelor's degree in a quantitative programme, such as mathematics, statistics, engineering, computer science & sciences.
- Should you already have any strengths (experience) in cybersecurity, You SHOULD highlight them in your application (eg participate in hacking competition, worked in cyber areas in companies etc)
- Some programming skills (such as Python, Java or C) impt
- A good TOEFL (iBT≥100, PBT≥600, CBT≥250 or IELTS≥6.5) score is required for graduates of universities with non-English medium of instruction.

# Our Aug Program, in 2024

- We will follow fully NTU academic calendar for undergrads.
- Aug Early Dec (13 weeks term plus mid term 1 week break)
- Mid Dec –Early Jan (Semester break)
- Jan2025 Mid May 2025 (13 weeks plus mid term 1 week break)
- Mid May 2025 -Aug 2025 (IA Program will begin for students who have completed & passed coursework requirements)
- IA will last 3-4.5 months depending on company preference

# Our Fees, Aug 2024 intake, Excluding GST

Spore Citizens	\$36,500
Permanent residents	\$43,500
International Students	\$54,300

#### **Our Intake**

- 1<sup>st</sup> intake 33
- 2<sup>nd</sup> intake 39
- Good news: This aug intake we are expanding
  - We are aiming for 60 this aug

# Scholarships for bright students (SC, PR)

SG DIGITAL SCHOLARSHIP (POSTGRADUATE)-SC Only

https://www.imda.gov.sg/imtalent/programmes/sgd-postgraduate

National Cybersecurity Postgraduate Scholarship (NCPS)-SC &PR

https://www.nrf.gov.sg/docs/default-source/default-document-library/About-NRF/download-pdf.pdf

Many other companies & even banks (just google)