



**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

Centre for Professional and
Continuing Education

Learn the Skills, Tools and Techniques to Launch a Successful Career as a Software Developer



NTU SGUnited Skills Programme in

Software Developer Immersive

Co-organized by PaCE@NTU and Skills Union

Funded by SSG and eligible for SkillsFuture Credit

Skills Union

Course Outline

This 6-month course has been designed by industry experts to provide all the knowledge and skills of Software Engineering, to enable graduates to excel in a career in this exciting and highly in-demand field.

You will gain essential hands-on experience on how to be an effective coder, build and test software products, understand how information technology works in our society, and learn the key tools and frameworks for different software development roles to launch a successful career.



The Software Developer Immersive combines problem-solving, creativity, empathy, and logic to equip learners with well-rounded technical skills to meet the current industry demands.

Throughout the course, learners will learn the critical aspects of the Software Development processes, including requirements gathering, planning, coding, and testing. They will also learn the foundations of product management - including Scrum and Agile - to provide them with the core skills to work in technical development teams in start-ups, agencies, and product companies, etc.

Programming
Fundamentals

Frontend
Frameworks & APIs

Backend
Frameworks & APIs

Mobile & Full-stack
Development

Relational & NoSQL
Databases

Agile & Product
Development

Course Modules

Programming Fundamentals

This module covers the basics of programming that are transferable to learning any programming languages they encounter in the workplace. Learners will be equipped with the fundamentals of programming before advancing to frontend, backend and mobile development.

Frontend Framework & APIs

React JS is a JavaScript component-based framework that has become the most popular framework in the tech industry for building frontend web platforms. In this module, learners will learn the fundamentals of React, the best practices and build a single-page application that consumes APIs for dynamic data representations.

Backend Framework & APIs

Many companies such as Netflix, PayPal and LinkedIn have experienced great performance improvement using Node.js. In this module, learners will learn how to build APIs with Node.js consumable by both web and mobile applications.

Mobile & Full-stack Development

Learners will reuse their knowledge on React JS and apply them to the mobile platform with React Native where they will learn to deconstruct wireframes produced by UX Designers to implement on mobile development. At the end of this module, learners will deploy a mobile app that consumes live APIs.

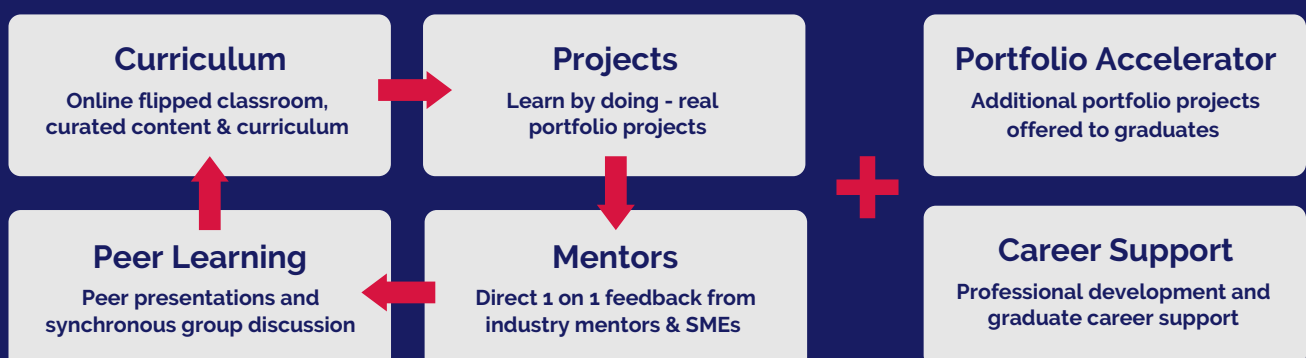
Relational & NoSQL Databases

Learners will be developing software that integrates relational (PostgreSQL) and NoSQL (MongoDB) databases that store structured and unstructured datasets. Unlike the olden days where companies used only relational databases, modern software solutions leverage relational and NoSQL to achieve data accessibility and performance.

Agile & Product Development

Agile development puts software release at a competitive advantage as the business no longer has to wait for months for a software release. Agile seeks to deploy shippable software versions regularly. Learners will be working on projects and assignments in a SCRUM methodology.

Our unique learning approach is based on Active Social Learning, where learners learn hands-on by interacting with peers through synchronous and asynchronous e-learning using the flipped classroom model, real-world portfolio projects, and direct access to our Mentors. The learning system is based on David Kolb's Experiential Learning Model, Honey & Mumford's Learning Styles, and the Learning Pyramid.



Graduate Support & Outcomes

Industry-Focused Curriculum

Our curriculum is designed and developed with direct input from leading technology industry professionals worldwide and working with leading curriculum content providers. Our mission is to work with and support our learners, to deliver radically relevant learning experiences that equip them with the tools, skills, and technologies they need to succeed in the fast-growing digital economy.

Industry & Mentor Networking

Our industry network of instructors and mentors includes professionals from some of the most recognized tech companies. Our talented team consists of experienced instructors, mentors, and industry subject matter experts, and ongoing networking support for our graduates, ensuring graduates get the necessary support they need to launch their careers.

Portfolio Accelerator - Real Projects

Our graduates work with real startups and hiring partners on projects that provide graduates with the portfolio they need in their job search through our Portfolio Accelerator programme. This project-based, experiential learning approach also allows graduates to learn essential soft skills, such as communicating with clients and the skills they will need in their career for any client-facing role.

Graduate Career Support

Our programme focuses on highly sought-after skills, which, combined with a qualifying admissions process, mentorship, and soft skills development, means that graduates are set up for success. We develop partner relationships with local employers and our global community through mentoring, portfolio projects, and hiring events to support our graduates once they have completed the programme.

Course Application Details:

Click on the dates to register now

Course Date: [26 July 2021 to 21 January 2022](#)
[20 September 2021 to 18 March 2022](#)
[15 November 2021 to 17 May 2022](#)
[17 January 2022 to 15 July 2022](#)
[21 March 2022 to 16 September 2022](#)

Duration: 720 hours

Venue: NTU Virtual Learning Environment

Course Fee: Standard Fee - S\$19,260 (inclusive of GST)
Subsidised Course Fee - S\$500 nett
(applicable to Singaporeans and Singapore PRs only)



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