



# SOFTWARE DEVELOPMENT BOOTCAMP

(Diploma in Web  
Application Development)



Aaron, our mentor conducting a coding workshop @ Carousell

**TRENT GLOBAL COLLEGE (TGC)** was founded in 2004 in Singapore with the aim of identifying knowledge and skill gaps in the industry and working with employers to design and deliver industry-relevant programmes



It has attained the 4-year Edutrust Certification and its programmes are industry accredited.



**Kelly Yan**  
General Manager

"With these tech companies on our shores, the demand for ICT professionals is great. Our college is privileged to be part of Singapore's efforts to build up ICT skilled workforce as we are one of the approved training providers for Infocomm Media Development Authority of Singapore's TIPP programme."

Supported By:



## **INFOCOMM MEDIA DEVELOPMENT AUTHORITY (IMDA)**

Tech Immersion and Placement Programme (TIPP) aims to convert non-ICT professionals into industry-ready ICT professionals. Through an immersive training courses or mentorship & coaching programmes lead to the creation of an impressive portfolio, allows interaction with leading experts in the respective fields and prepare individuals for future tech roles.

## TAUGHT BY INDUSTRY FOR INDUSTRY

Our instructors and mentors love to code and most of all - they love to teach coding. You'll learn from talented professionals who have accumulated a wealth of experience both in the technology and education sectors.

These are just some of the companies in which our graduates can be found:



## MEET OUR TEAM



**Paul Chor**  
Head Instructor



**Muhammad Adam**  
Instructor



**Alexander Yan**  
Programme  
Coordinator



**Andrew Tan**  
Country Manager  
Wantedly Singapore

## OUR MENTORS



**Malcolm Yam**  
Lecturer  
Ngee Ann Polytechnic



**Jackie Tan**  
Founder  
Forbes 30 under 30 Asia



**Aaron Lam**  
Software Engineer  
Bytedance



**S.V. Neelima**  
Developer  
Facebook



Coding Workshop @ TGC



**Alexia Hsu | 2020 Graduate**  
DBS Singapore, Data Analyst

This is an intense **coding bootcamp** created and validated by tech industry experts and academics - delivered full-time in the classroom.

## STUDY OPTIONS

*\*With a minimum attendance of 85%*





**Linda Lee | 2020 Graduate**  
DBS Singapore, Developer

## ASSESSMENT

- Each module will have a number of quizzes and challenges
- 4 projects to complete
- Projects must be completed before the certificate is awarded
- Graduates will be able to compile their completed projects as a portfolio to showcase to potential employers their newly acquired skills

## ENTRY REQUIREMENT

\**English Proficiency: Those who do not meet the English proficiency requirement must pass the English proficiency test.*

- 3 'O' passes including English, or equivalent, Higher Nitec
- For mature students of at least 30 years who do not meet the above minimum academic entry requirements but with at least 8 years of working experience in the relevant fields will be considered on a case by case basis

## COURSE PRICING

Notes:

*Prices do not include Goods and Services Tax (GST)  
IMDA Subsidy is subject to approval for qualified applicants*

### Local Students

- |                      |                          |
|----------------------|--------------------------|
| • Course price       | S\$13,500                |
| • Subsidy amount     | 70% from IMDA (S\$9,450) |
| • Payable amount     | S\$4,050                 |
| • Application fee    | S\$250                   |
| • Administration fee | S\$150                   |

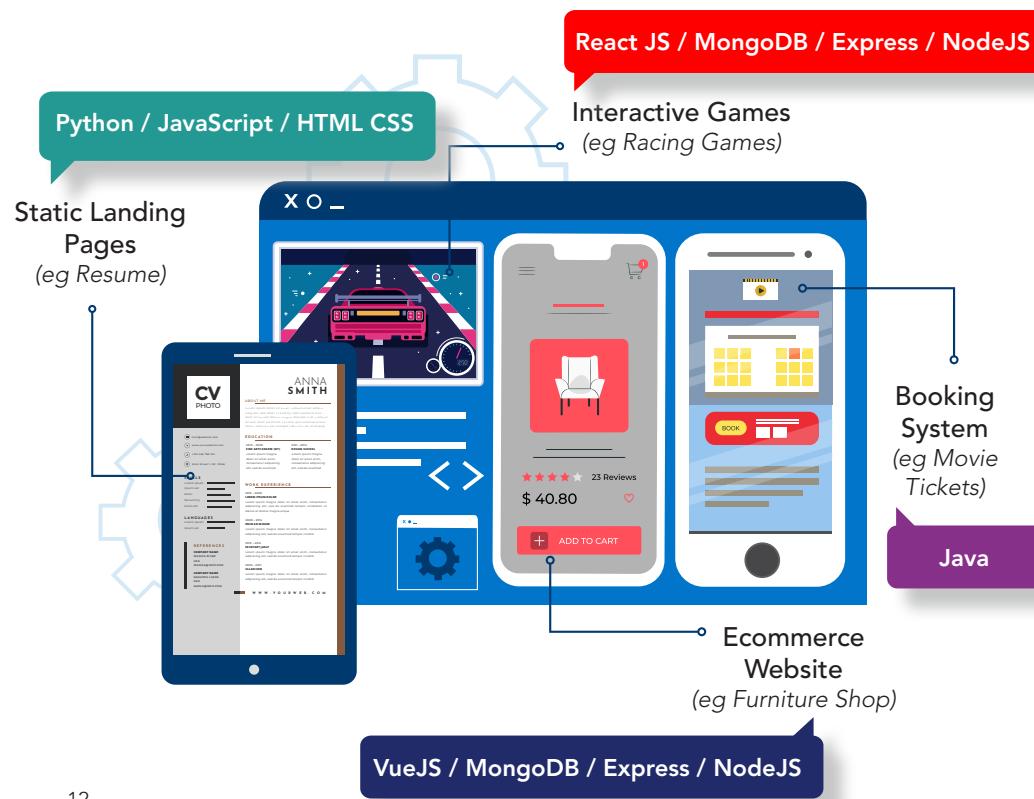
# WHAT WILL I LEARN?

Upon the successful completion of your projects, you will be awarded the **Trent Global College Diploma in Web Application Development**, the only tech bootcamp in Singapore that awards you a diploma.

The certificate is not all that you'll get, you'll pick up the industry-relevant skills and languages that will get you that first role as a junior developer or advance your technical capabilities

Finally, graduates receive a digital diploma to display on LinkedIn. A hardcopy of your Trent Global Diploma in Web Application Development is also available upon request.

## KEY TECH STACK TAUGHT



**Yong Sheng Lim | 2022 Graduate**  
DXC Technology, Software Engineer

# COURSE BREAKDOWN

In order to provide a comprehensive introduction to software development this course takes a look at important coding languages that make up frontend and backend development.



FRONTEND  
FUNDAMENTALS



PYTHON  
FUNDAMENTALS



FRONTEND  
DEVELOPMENT



DATA CENTRIC  
DEVELOPMENT



BACKEND  
DEVELOPMENT



MODERN  
FRONTEND  
FRAMEWORK



MODERN  
BACKEND  
FRAMEWORK



JAVA



Fareez Aziz | 2021 Graduate  
Local Bank, Python Developer



## FRONTEND FUNDAMENTALS

Starting with the basics, we look into understanding what Frontend development entails. As the developer, you will need to consider the users' point of view when accessing your site, ensuring that the experience is smooth and user friendly. How should the menu look like? Where should you place the shopping cart icon? These are some of the considerations you might have.

This module will teach you about the skills, tools and languages required to create a immaculate and user centric website, as well as how to identify and fix any errors or bugs on the frontend.

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The topics covered in this module include:

- ◆ HTML CSS
- ◆ Embedding Media
- ◆ Debugging in Chrome
- ◆ Responsive Web Design
- ◆ UI UX
- ◆ Bootstrap 4
- ◆ Layout, Visibility and Positioning



## PYTHON FUNDAMENTALS

One of the most verstaile programming languages used in numerous fields from Data Science to Automation. The usage of python in different industries is evergrowing due to the many packages / libraries available. As you might already know, its also a beginner friendly programming languages due to its nature of being neat, readable, and well-structured. An evergreen tool for every developer to have in his tool kit!

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The topics covered in this module include:

- ◆ Numbers, Operators, Variables and Types
- ◆ String Variables
- ◆ Sequences, Indexing and Lists
- ◆ Loops
- ◆ Functions
- ◆ Scoping and Functions
- ◆ Modules, Collections and Dictionaries



## FRONTEND DEVELOPMENT

When you move your cursor over a button, isn't it satisfying to see it react when you click on it, causing a video to play, a picture to fade in? Leveraging on HTML and CSS thus far, we will now project a new layer of design and interactivity to a webpage, granting new dimensions to improving on the user-experience.

Learn to create websites that change its layout, content and other visual elements depending on the user's interaction. As part of learning JavaScript, you'll also be able to do basic algorithmic functions, using JavaScript, such as sorting, developing stacks and queues and linear array traversals.

The topics covered in this module include:

- ◆ Basic Design Patterns in Javascript
- ◆ Basic Algorithms in Javascript
- ◆ Restful API Integration
- ◆ Application Programming Interfaces (APIs)
- ◆ Interactive Maps
- ◆ Manipulation of Media Files using Javascript
- ◆ Manipulation of JSON Data and Schemas
- ◆ Milestone Project 1



## DATA CENTRIC DEVELOPMENT

In this day and age, just about everyone needs to store their data and filter through endless lists of information. While designing a website, consideration must be spared as to how you would store your user's information, product details or media files should be accessed when requested.

Through learning the fundamentals of database management, you will then learn how to apply MySQL and MongoDB to efficiently manage the collection and storage of these various data types.

The topics covered in this module include:

- ◆ Database Fundamentals
- ◆ Relational Database Design
- ◆ MySQL
- ◆ MongoDB
- ◆ ORM
- ◆ Application Integration
- ◆ Mongoose



## BACKEND DEVELOPMENT

NodeJS, working with what you've picked up in JavaScript, now plays a critical role in the coding stack of various high profile tech organisations. Together with the Express framework, you can link the various backend code that you have set in your applications and develop different interactions and rules for each set of functions.

Learn to make use of various packages to build NodeJS and Express applications, adding on to your existing knowledge of Mongo and MySQL to perform relevant tasks.

The topics covered in this module include:

- ◆ NodeJS
- ◆ Express
- ◆ NPM or Yarn
- ◆ Manage Dependencies
- ◆ CRUD Operations with MongoDB or MySQL
- ◆ Process Web Forms and their content



## MODERN FRONTEND FRAMEWORK

While working with the basic Frontend Frameworks is good, we want you to have a good footing of the latest modern frontend works currently being used in Industry. With this, we introduce the React or Vue JS Framework, widely-used additions that are very popular amongst startups. Incorporating JXS templates, an extension of JavaScript, you will learn new levels of dynamic and interactive components that can be included in various applications.

The topics covered in this module include:

- ◆ VueJS
- ◆ React JS
- ◆ Advance Algorithms
- ◆ API endpoints
- ◆ State Management



## MODERN BACKEND FRAMEWORK

Finally, we take things to the next level by introducing advanced Backend frameworks into the picture, starting with NestJS. Progressing from NodeJS, you will learn how to make much more efficient, reliable and scalable server-side applications.

To give us better idea on this, you will utilize this framework to program a very important feature in every online business, the inclusion of third-party payment to a site. Utilizing NestJS, learn how to incorporate it into the site, understanding how it's features enable you to manage and authenticate payment online.

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The topics covered in this module include:

- ◆ Testing on Nest JS
- ◆ User Authentication
- ◆ Configuration Management
- ◆ Deployment on Heroku
- ◆ Usage of Stripes for Payment
- ◆ Creation of Session-Based Shopping Cart
- ◆ Routing



## JAVA

Java is one of the most popular programming languages in the market, known for it's flexibility in its application across different platforms and uses in software development and mobile application development.

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The topics covered in this module include:

- ◆ Java Basic Algorithms
- ◆ Java Design Patterns
- ◆ Pair-Programming
- ◆ Test-Driven Development
- ◆ Code Review
- ◆ JDBC and Batch Programming
- ◆ ORM (Hibernate) for Java



Are you ready to start your coding journey?  
To learn more about our courses or pricing,  
please contact an education advisor at:

**info@trentglobal.edu.sg**

or

**visit: bit.ly/trentglobal**

or

**Whatsapp us: 9112 0394**

visit us:

**229 Mountbatten Rd,  
#01-30 ERCI/ Trent Campus,  
Singapore 398007**