

Re: April 1st, 2019

Part-Time React+JavaScript Front-End Web Development

When: Total 12 weeks
Every Tuesday
from May 7th, 2019 to July 23rd 2019

Time: 6:30 pm to 9: 30 pm

Instructors:

Tim

Tim has 8 years of experience in teaching coding and React Web Development. Prior to his teaching career, he has worked in several high-profile IT firms and started his own start-up in Toronto. He studied Computer Science at University of Toronto.

Joe

Joe is a career consultant. Currently, he is President of Operations and Principal Consultant at Branding Academy, one of the leading online career services firms based in Toronto. He served as Director of the Internship Program at a private University and career college and served as Director of Studies at English Lab Toronto. He has taught numerous university students on career strategy and job interview techniques. He earned a MFA degree from AFI Conservatory in Los Angeles and a BA degree from Temple University in Philadelphia. Additionally, he studied Human Resource Management at George Brown College.

Course Title:

Part-Time React+JavaScript Front-end Web Development

Course Summary

This part-time course is involved in programming the user interface of a web application. Students will learn coding languages including but not limited to Hypertext Markup Language (HTML), Cascading Style Sheets (CSS) and JavaScript portion of web site production. Using React as a main framework, students will learn industry-standard front-end web programming in a very fast pace. It encompasses various types of coding practices from building a simple page of HTML text to creating complex, responsive HTML5 websites designed to be accessed via various different browsers, devices and screen sizes.

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Knowledge Students Will Gain:

Core Competency knowledge of front-end websites

1. Students will learn how to construct front-end browser-based interactive web applications.
2. The MVC/MVVM (Model-View-Controller/Model-View-View-Model) approach of React / Vue to implement well-designed and structured webpages and web applications.
3. Students will also learn how to define their own custom React components that extend the HTML language

Core Competency: understanding of the client's business needs

1. Understanding of the client's business needs affects the functionalities of websites.
2. students will learn how to identify the client's needs and how to provide solutions on the websites.

Skills Students Will Gain:

Core Competency:

1. Students will build real-world, interactive, dynamic websites and web applications through participating effectively in multi-functional teams
2. Students will implement client-side functionalities that can interact with the back-end webserver
3. Students will build dynamic browser views that provide rich user interaction

Core Competency: Identify the client's needs through client meetings and build the final-project websites.

1. Apply knowledge of the website-structuring principles on their final-project websites
2. Students will add nested components to your webpages
3. Students implement Angular routing to manage navigation between client application views

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Course Agenda

Sprint 1

Week 1

| | |
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| Lecture | Fundamental Programming Concepts in JavaScript (ES6) |
| Workshop | Code Examples and Exercises (data structures) |
| Homework | Eloquent JavaScript (Ch 1, 2, 3) Kata |

Week 2

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| Lecture | Fundamental HTML/CSS |
| Workshop | Best practices and Debugging |
| Homework | Make a webpage Eloquent JavaScript (Ch 4, 5) Kata |

Week 3

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| Lecture | Bootstrap CSS |
| Workshop | Responsive Design |
| Homework | Make a responsive webpage Readings Kata |

Sprint 2

Week 4

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| Lecture | Callbacks, Promises, Asynchronous Code |
| Workshop | Code Examples and Exercises (implement map, higher-order functions, object methods) |
| Homework | Eloquent JavaScript (Ch 11) JavaScript Event Loop |

Week 5

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| Lecture | Dynamic Content with JavaScript/jQuery |
| Workshop | jQuery |
| Homework | Eloquent JavaScript (Ch 13, 14, 15) Make a dynamic SPA (Instagram clone - Minstagram) |

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Week 6

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| Lecture | Using APIs |
| Workshop | Code Examples and Exercises |
| Homework | Eloquent JavaScript (Ch 18) Add real data to the SPA |

Sprint 3

Week 7

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| Lecture | Introduction to JSX and React |
| Workshop | Code Examples and Exercises |
| Homework | Codecademy freeCodeCamp |

Week 8

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| Lecture | Passing Data with Props |
| Workshop | Components Interacting |
| Homework | Remake previous SPA in React (Minstagram with real data) |

Week 9

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| Lecture | Component Lifecycle |
| Workshop | State Debugging Auth |
| Homework | Add dynamic functionality to SPA (Likes & Comments) Look at React apps |

Sprint 4

Week 10

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| Lecture | Final Project Introduction |
| Workshop | Student presentations (from HW) |
| Homework | Final project |

Week 11

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| Lecture | React Router |
| Workshop | TBD |
| Homework | Final project |

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Week 12

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| Lecture | Context & Hooks |
| Workshop | TBD |
| Homework | Final project |

Course Assignments and Final Project:

Students have to follow the 'User Stories' on the course's Trello board to complete the assignments. During the Sprint 4, the group's web project will be deployed. The individual involvements will be evaluated and graded by the course instructor.

Software and Tools

- [Git](#)
- [VS Code](#)
- [Slack](#)
- [Trello](#)
- [GitHub](#)
- [Node.js](#)