

Tyler King

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Education

Algonquin College, Ottawa, ON

September 2019 - December 2022

Ontario College Advanced Diploma

Computer Engineering Technology - Computing Science

Projects

Fast Food Ordering Website | ReactJS, OAuth

- Developed a ReactJS based online food ordering web application with OAuth login in an Agile development team, for Tech Track Canada.
- Prepared technical documentation for sprint reviews and sprint retrospectives with clients to incorporate feedback into end product.

RESTful API Sprite Simulator | Java EE

- Developed REST API CRUD to modify object values on a HeidiSQL server using Java Enterprise Edition technologies such as JAX-RS, EJB, and JPA.
- Integrated API with Heidi SQL to persist and retrieve object data.
- Object data updated in real time using threads, JSON, REST APIs, and Heidi SQL. Accessible through XHTML form.
- Developed and tested on local Glassfish server.

Custom Compiler | C Language

- Implemented a custom lexer to recognize and tokenize unique language syntax, using regular expressions and state machines.
- Designed and implemented a custom parser to parse and validate language grammar, using recursive descent parsing and LL(k) parsing techniques. Integrated buffer and scanner into compiler pipeline, ensuring seamless and efficient processing of source code.

3D Lithophane Generator | Java, OOP

- Utilized object-oriented programming concepts such as inheritance and polymorphism, to build a modular and scalable application.
- Implemented mathematical algorithms to generate fractal patterns, using 2D matrices to store and manipulate data.
- Utilized Java unit testing frameworks, such as JUnit, to write and run automated tests, ensuring code quality and stability.

Technical Skills

- Languages: C, C#, Java, JavaScript, HTML5, Python, SQL, R
- Frameworks: ReactJS, .Net, Junit
- Development Tools: Git, Azure, VS Code, Visual Studio, Eclipse, Weka, IntelliJ, Postman, Wireshark