# RICARDO RAMNARINE

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## EDUCATION

University of Toronto – Honours B.Sc. in **Computer Science & Bioinformatics**          **2014 - 2019**

**Languages**: Java, Python, C, JavaScript, SQL

**Courses**: Software Design, Systems Programming, Algorithm Design, Data Structures, Operating Systems, Web Programming, and Software Engineering

## WORK EXPERIENCE

Finastra - Software Developer Intern          **May 2018 - August 2019**

OpenAPI Linter (Technologies: **Kotlin, JavaScript, PostgreSQL, Docker**)
  - Worked on a quality assurance OpenAPI linter enforcing Finastra REST API standards for OpenAPI specifications in an interactive Web UI.
  - Followed a **test-driven development framework** to implement Finastra specific rules using **Kotlin**

BDD Demo Application (Technologies: **Java, SQL Server, Spring, Gherkin, OAuth 2.0**)
  - Developed an innersource application from the ground up with a functional microservice REST API using **Spring Framework** to demonstrate automated **BDD** testing using **Cucumber**
  - Presented and made available to Finastra teams to fast track their learning of BDD testing

Public Health Ontario - Research Assistant          **September 2017 - April 2018**
  - Used tools run on a cluster to assemble and characterize genomic reads from bacteria isolates
  - Performed Molecular Serotyping, MLST, and SNP Analysis on WGS data of foodborne pathogens
  - Used Gini-Simpson and other heuristics to measure how each analysis distributed the data
  - Published in: **Draft Genome Sequences of Four Clinical Legionella pneumophila Isolates from Ontario, Canada**. *Genome Announcements*. 2018; 10.1128

## PROJECTS

File Synchronization System (Language: **C**, Project Type: **Independent**)          **2017**
  - Created a file copying tool that synchronizes a file or directory from a source to a destination.
  - The **client and server** program collaborate using **sockets** to send files across different machines.
  - For efficiency, this program compares hashes of the source and destination files before copying to check if it is necessary.

Quality Assurance for Computational Systems Biology (Language: **R,** Project Type: **Team**)          **2017**
  - Responsible for keeping a **team of 20** students on track in a collaborative software environment and verifying the quality of submitted code through **code reviews**.
  - Followed a **test-driven development framework** to develop an **R package** with tools that can be used to analyze driver mutations from cancer sequencing projects.

Mock File System (Language: **Java**, Project Type: **Team**)          **2015**
  - Mock file system that uses **OOP, generics** and **design patterns** to implement basic shell commands.
  - Followed **SCRUM software development** framework and received the highest overall team effectiveness score from my team members.

## VOLUNTEER/LEADERSHIP

◆ Coach of the *University of Toronto*'s University College Dragon Boat Club          **2017 - 2018**