



Sam McConnell, BSc
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Computer Science Major, 3rd Year

TECHNICAL SKILLS

Languages: Java, C, C++, R, TypeScript

Software Tools: IntelliJ, RStudio, WebStorm, Vim, GitHub, DAVID

RELEVANT EXPERIENCE

Epigenomics Lab Assistant (Volunteer)

Michael Smith Laboratories UBC

December 2015 – April 2016

Martin Hirst Lab | Vancouver, BC

- Performed dry-lab maintenance duties for research pertaining to the epigenetic consequences of IDH mutations in cancer patients
- Assisted in organizing and writing scripts for epigenomic data with bash and R
- Applied various software tools and DMR analysis to help identify drivers of mutation in the cancer genome responsible for enzymatic and epigenomic changes

Access and Diversity Tutor

September 2015 – December 2015

UBC | Vancouver, BC

- Tutored students registered with Access and Diversity
- Recognized for providing friendly and enthusiastic assistance to struggling students in biology, chemistry, math, physics, and computer science

PERSONAL PROJECTS

Rubik's Cube:

- Implemented model in Java to track tile movements through cube manipulations for cubes of arbitrary size (ie. any cube with n by n dimensions for each face)
- Implemented 3D graphics and a simple GUI for a cube using Java3D
- In progress: add functionality for automatically solving the cube and providing hints to the user as to how to solve it

Skills: Java, Graphics rendering, UI/UX design, OOP, Data Analysis



ACADEMIC PROJECTS

Buses R' Us Android App:

- Developed an android app in Java to relay information about bus stops, routes, and current bus locations.
- Wrote JSON parsers to retrieve data from the TransLink API about current bus information
- Implemented geolocation of the user/stops and plotted bus routes

Skills: Java, Android Studio, Location Services, JSON, API use, debugging

UBC Course Helper:

- Created a web app for querying campus metadata using TypeScript
- Scraped course and building information from the UBC website
- Recognized for outstanding achievement (90+) in implementing backend services
- Constructed a function to interpret queries by recursively generating new functions to filter the datasets

Skills: TypeScript, REST, debugging, design

ADDITIONAL WORK EXPERIENCE

Tree Planter

May 2011 - Aug 2016

Checker/Pay Plotter

Data entry and payroll

Folklore Contracting | Prince George, BC

- Planted trees in recently logged areas
- Maintained and ensured blocks of land were planted to the specifications of foresters
- Prescribed measures to correct faults to planters when necessary
- Managed worksite orientations and payroll information.

EDUCATION

Bachelor of Science, Computer Science

University of British Columbia, Vancouver, BC

September 2016 - Present

Bachelor of Science, Biochemistry

University of British Columbia, Vancouver, BC

May 2015