

SYED WAQAR AHMED

Bachelor of Computer Science Student (BCS)

+1 (778) 873-7100 | syedw@student.ubc.ca | github.com/betternick | [linkedin.com/in/syed101](https://www.linkedin.com/in/syed101) | <https://betternick.github.io/syed/>

ubc science co-op



T: 604.822.9677 | F: 604.822.9676 | science.coop@ubc.ca | www.sciencecoop.ubc.ca

PROGRAMMING LANGUAGES AND TOOLS

**currently learning*

- Languages: JavaScript, Java, C, SQL, x86 Assembly, C++, TypeScript, HTML, CSS, REACT*, Redux*, MongoDB*
- Tools: IntelliJ IDEA, VSCode, MySQL Workbench, Postman, Mocha, Yarn, Express*, GitHub, Bootstrap, Jira, Confluence, Redmine.

TECHNICAL PROJECTS

**in development*

Outdoorsly (Academic project) – Node.js, MongoDB, Express, REACT, Redux

May 2023*

- Developing a MERN stack web application for users to search for and rate national parks according to their preferences for outdoor activities.

Course Querying software (Academic) – TypeScript, Node.js, Express, JavaScript, HTML, CSS

April 2023

- Developed a RESTful web app to provide a way for UBC students to query historical course data and UBC building data. Source data included raw data files published by UBC and data scraped from the UBC website.
- Used Agile methodologies, TDD, SOLID design principles and object-oriented design patterns.
- Used tree-walking algorithm to implement a custom EBNF query language. Used BFS to traverse HTML tree and scrape relevant data from multiple linked webpages.
- Server-side development in TypeScript using Node and Express. Client-side in JS, HTML, CSS.
- TDD using Mocha and Chai test frameworks.

Inventory Management software (Academic) – JavaScript, SQL, Node.js

Aug 2022

- Developed a web app used to manage inventories at a warehouse.
- Created ER diagrams, normalized the database to 3NF and BCNF, designed the relations and schema and used MySQL Workbench to create and manage SQL database
- Wrote extensive SQL scripts to create and query the database
- Contributed to backend using Node.js

Point-Of-Sale software for a Cafe (Academic) – Java, OOP, JSON, TDD

Mar 2021

- Designed & developed a desktop app that can be used to order, record & manage menu and sales for a café.
- Used UML to create the project skeleton & applied OOP principles to design the modules and classes
- Designed the GUI using Java Swing and implemented data persistence to store/retrieve using JSON parsers
- Wrote extensive JUnit tests to ensure complete coverage during TDD

Lossy Image Compression problem (Academic) - C++, OOP, Algorithms and Data Structures

Dec 2021

- Implemented and optimized an algorithm for lossy image compression using a K-d tree.

Multithreaded Synchronization Problem (Academic) – C, Mutex, Semaphore, X86 Assembly

Mar 2022

- Used semaphores and mutexes to solve synchronization problems such as cigarette smokers' problem
- Implemented bubble sort in SM213. Optimized programs for X86 assembly-based pipelined processors

WORK EXPERIENCE

Technical Business Analyst – Digital Documents, Acturis-Canada, Victoria, BC

May 2023 – Present

- Transforming data generated by Acturis software to generate pdf documents using XSLT (an XML-parsing language).
- Writing SQL scripts to query build environments.
- Building specifications for new documents and updates.
- Manual testing of documents.
- Managing internal and external tickets for document builds/updates using JIRA, Redmine and FastTrack.

IB Diploma Instructor, TNS Beaconhouse, Lahore, Pakistan

Jan 2017 – Oct 2020

- Taught International Baccalaureate Diploma subjects of Biology and Environmental Systems and Societies. Mentored student participation in STEM national science competitions. Fostered student interest in Environmental Sciences increasing class enrollment from 3 to 50+ students over 4 years.

Research Assistant, LUMS - School of Science and Engineering, Lahore, Pakistan

Jan – Aug 2016

- Investigated role of microRNAs in wheat genome evolution.
-

EDUCATION

Bachelors in Computer Science - Average: 85%

*Expected Dec 2023

University of British Columbia, Canada.

M.Sc. (Evolution, Ecology & Organismal Biology) - GPA: 3.86/4.0

Sep 2015

University of California, USA.

- Awards: Fulbright Scholarship: Awarded by J. William Fulbright Foreign Scholarship Board to pursue Masters study at University of California, Riverside.