Abdullah Shahid

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Education

University of Toronto Toronto, ON

Honours in Bachelors of Science (H.Bsc.), Computer Science + PEY Co-op *Sep 2020 – May 2025*

- Cumulative GPA of 3.80 / 4.0
- **Relevant Courses:** Software Design, Systems Programming, Intro to Databases and Webapps, Spatial Data Science, Operating Systems, Data Structures and Algorithms

Experience

Teaching Assistant September 2022 - December 2022

University of Toronto *Missisauga, ON*

- Teaching Assistant for a second year computer science course, CSC207 (Software Design).
- CSC207 covers topics including Java, design patterns, UML, object-oriented design and development, version control, unit testing, refactoring, advanced IDE usage, regular expressions, floating-point numbers and introduction to numerical computation
- Effectively leading tutorials attended by approximately 80 students to deepen student understanding of software design topics

Software Engineer May 2022 - December 2022

UofT Hatchery *Toronto, ON*

- Designed the appropriate technology stack for building a mobile application to handle sensitive data resulting in a smoother software development process
- Assisted with the design of the cloud architecture using Amazon Web Services (AWS) while adhering to The Health Insurance Portability and Accountability Act (HIPAA) compliance
- Took initiative in learning React Native and went on to successfully develop various features in the mobile application
- Developed a RESTful API in Python Flask for the mobile application to communicate with the cloud database

Projects

PCRS | *Python, Django, Javascript, HTTP, CORS* May 2022 - August 2022

- Enhanced the University of Toronto's interactive programming exercises web application, PCRS, under the supervision of two computer science professors
- Assisted with the research and development of "Parsons Problem" to improve student learning experience
- Heavily worked with HTTP, sessions, and server configuration to support cross domain requests (CORS)
- Optimized the algorithm responsible for loading the test cases for each problem and reduced the number of database queries by 90%

MyShell | *Linux, C, Make, Valgrind* Jan 2022 – May 2022

- Built a powerful and versatile Linux shell in the C programming language with efficient memory management
- Configured network sockets to allow for networking capabilities such as connecting and communicating with other shell instances over the internet
- Wrote code to concurrently execute multiple commands in parallel through the use of the pipe and fork system call in C

Workout Tracker | *Java, Android Studio, Firebase, Git, UML* Sep 2021 – Dec 2021

- Built a native Android app using Java that allowed users to track their fitness routines
- Designed the software architecture around the SOLID principles resulting in reduced code dependencies and an extensible software design
- Configured and Integrated Google's Firebase API into the mobile application for authentication and database requirements
- Tested program thoroughly using Junit unit tests to guarantee that the application runs bug-free

Technical Skills

Languages: Java, Python, C, SQL (Postgres), JavaScript, HTML/CSS, R
Frameworks: React, Flask, JUnit, WordPress, React Native, Django
Developer Tools: Git, Amazon Web Services, VS Code, Visual Studio, PyCharm, IntelliJ