Karim Benhallam

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PROGRAMING LANGUAGES AND FRAMEWORKS

C#	TypeScript	HTML	XUnit
Java	SQL	CSS	Maven
Python	C++	Angular	Selenium
JavaScript	ASP.NET	React	JUnit

EDUCATION

Bachelor of Applied Science, Software Engineering   September 2019 – May 2024
University of Ottawa   Ottawa, ON

Capstone Project   January 2023– December 2023
- Developed a web application to aid research institutes in identifying researchers in specific fields, employing boolean search functionalities for precise and efficient results
- Implemented Azure Synapse Pipelines to construct a robust database infrastructure, optimizing data flow and processing efficiency to seamlessly integrate with the web application
- Collaborated with the newly-formed "DataHub" team to integrate untapped data sources
- Exploited a diverse set of technologies, leveraging C# for the backend logic, Angular for the frontend user interface, SQL Server for database management, and LINQ for streamlined data querying and manipulation

WORK EXPERIENCE

Research Assistant   May 2023- Present
Department of Linguistics, University of Ottawa   Ottawa, ON
- Leveraged C# programming to modify the FieldWorks source code and to build a custom web application, incorporating unique software features, enhancing the usability and efficiency of the application
- Developed a user-friendly GUI using Python for the linguists to merge both dictionaries into a comprehensive database, streamlining the data consolidation process
- Made strategic decisions to leverage FieldWorks database files over SQL tables, optimizing the software's performance and data management capabilities
- Enhanced Python script to create database files from scanned HTML data, facilitating the digitization of two distinct Cham language dictionaries
- Provided technical support and responded to inflowing programming request by implementing software requirements, and providing high level overviews of programming activities to an interdisciplinary team of researchers

Full Stack Developer   May 2022- August 2022
Conceptio Technologies   Québec, QC

- Designed and constructed a user-friendly web application, using Angular, ASP.NET and Auth0
- Led discussions with clients and stakeholders to implement their feedback throughout the application design process, following agile principles
- Initiated testing of the web API's backend functions using XUnit framework, while maintaining code coverage above 80%
- Improved proficiency in TypeScript and C# through effective pair programming
- Implemented user authentication and role-based access control using Auth0

Web Developer   September 2021- December 2021
EUC Service Evolution, Innovapost   Ottawa, ON

- Developed an accessible self-help web portal prototype using SharePoint Online
- Optimized user experience by analyzing out of date websites and source codes in HTML, CSS, JavaScript, Bootstrap and Media Queries revealing malfunctioning features
- Provided relevant solutions to common staff IT problems by updating user self-help content using HTML and CSS
- Identified areas of improvement by contrasting the web portal to existing self-help content pages

Web Content Coordinator   January 2021- April 2021
Faculty of Engineering, University of Ottawa   Ottawa, ON

- Led migration project, transferring faculty and staff information from their personal web pages to a university platform, Uniweb
- Provided direct support to faculty and staff seeking assistance, information, resources related to university platforms and personal web pages
- Organized speaker panels which included students and staff from the Faculty of Engineering to present information to future engineering students
- Coordinated tasks such as updating and creating web pages to engage students in Faculty events

PROFESSIONALS SKILLS

Software Engineering

- Mastery of various programing languages and frameworks (discussed in *Programing Languages and Frameworks)*
- Extensive experience using web development
- Autonomy and problem-solving
- Proficiency in software testing

Leadership

- Decision making and time management skills have enabled to effectively discharge duties
- Supervision skills have allowed effective delegation while maintaining a positive work environment
- Communication and interpersonal skills have allowed to integrate client feedback in project execution
- Bilingualism (fluency in English and French)