

Mohammad Moaddeli

(Software Developer)



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LinkedIn



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Hamilton, Ontario

Summary

- A results-driven Software Developer with proven industry experience delivering innovative solutions. Adept at leveraging diverse programming languages and tools to solve complex problems and create impactful, user-focused applications. Committed to contributing expertise in software development to drive team success, enhance project outcomes, and deliver value to both businesses and end-users.

TECHNICAL SKILLS

- **Programming languages:** Java, C#, MySQL, Software testing with C#, Spring Boot, React.js, React Native, Node.js, JavaScript, HTML, CSS, REST APIs, PHP, Python (Scikit-learn, TensorFlow, Pandas, NumPy, PyTorch, Matplotlib)
- **Tools:** Jira Service Management, VS Code, Visual Studio, Google Colab, GitHub, SharePoint, Unity, SSMS, Teams, IntelliJ IDEA
- **Other Skills:** Object Oriented Programming/design, Data structure & Algorithm, software development life cycle, Database Normalization, Use case and System design, Graphical User Interface, Software Quality, Unit testing, full-stack development, client & server-side programming

WORK EXPERIENCE

Data Analyst (co-op) | Procor Limited | Oakville, ON

02/2024 – 05/2024

- Transformed over 100 manual PDF forms into interactive digital forms, enabling seamless data entry on iPads, reducing paper usage by 90% and utilizing OOP and JavaScript.
- Collaborated with a team to implement dynamic, dependency-driven form fields using Adobe Acrobat and JavaScript, enhancing user experience and ensuring accurate data mapping across workflows.
- Analyzed, troubleshooted, tested, and automated electronic documents to store only essential data fields from submitted forms, significantly reducing storage requirements and improving data retrieval accuracy.

ML Research Assistant (Intern) | McMaster Automotive Resource Centre | Hamilton, ON

05/2023 – 12/2023

- Preprocessed and annotated large datasets, including fisheye camera frames and GPS data, for use in LSTM and RNN models to enhance pedestrian safety at intersections.
- Brainstormed and deployed mathematical formulas to identify and track surrounding vehicles in a driver's field of view, creating a dataset for autonomous driving systems to improve situational awareness.
- Trained deep learning models for speed and trajectory prediction, leveraging Python, MongoDB, and Google My Maps, while self-learning advanced ML techniques to optimize model performance.

Web Designer/Developer | Freelance | Hamilton, ON

05/2022 – Present

- Designed and developed front-end for over 25 websites using WordPress (including DIVI), Shopify, and Wix, and modifying SEO.
- Continued working on Shopify and WordPress projects and created custom logos and icons with Adobe Photoshop.

EDUCATION

Computer Systems - Software Development | Mohawk College, Hamilton, ON

09/2022 – 12/2024

- **Courses include:** Programming in .NET | Data Structure and Algorithm in Java | Software Quality & Testing | Programming in Java | Client-Side Web Programming | Programming Fundamentals Python | Server-Side Web Programming | Object Oriented Systems | Cloud Computing Azure | Database Theory SQL | Mobile Web Programming | Project Management for IT |
- **LinkedIn Learning:** Python Data Structures and Algorithms | Introduction to Deep Learning with OpenCV | Data Visualization for Data Analysis and Analytics | React.js Essential Training

PROJECTS

Sorting Algorithm Visualizer

Fall 2024

- Built a full-stack application with **Java** and **Spring Boot** (backend) and **ReactJS** (frontend) to visualize sorting algorithms like **Bubble Sort**, **Quick Sort**, and **Merge Sort**.
- Designed interactive step-by-step visualizations with clear explanations to enhance user understanding of algorithm mechanics and efficiency.
- Developed **RESTful APIs** for seamless communication between the backend and front end, ensuring **real-time** user interaction.
- Created an educational tool that bridges theory and practice, demonstrating expertise in Java, Spring Boot, and ReactJS.

Dynamic Sorted Collections Library

Fall 2024

- Developed **generic** sorted data structures (**SortedArray** and **SortedLinkedList**) in **Java** to automatically maintain elements in sorted order, ensuring efficient organization and access.
- Implemented key operations like **add**, **remove**, and **get** with comparison-based logic, optimizing performance for dynamic data management tasks.
- Tested for correctness and reliability through methodical validation, ensuring consistent behavior and robust handling of edge cases.
- Applied clean coding and **object-oriented design** principles to create maintainable, scalable solutions for future integration into larger systems.

Soccer game

Fall 2023

- Designed a **Unity** soccer game with **C#** allowing players to control a goal using keyboard inputs. Implemented ball **creation**, **movement**, and **collision** mechanics for **dynamic** gameplay.
- Integrated **win-and-lose conditions** with animations and sound effects upon scoring 18 goals or running out of time, ensuring a streamlined user experience.

Java Drawing App	Fall 2023
<ul style="list-style-type: none">- Implemented a Java drawing app, showcasing ArrayLists, and mouse listeners. Employed OOP principles with inheritance and encapsulation for shape classes, enabling parameter configuration and drawing on a canvas.- Enhanced user experience by implementing robust error handling, ensuring seamless interaction with informative error messages and preventing exceptions during shape creation and drawing.	
Media Secure Manager	Fall 2023
<ul style="list-style-type: none">- Developed a .NET Framework Console Application utilizing interfaces and abstract classes to manage media (Books, Movies, Songs) with features for search, display, and encryption.- Engineered solutions for media data management, ensuring efficient handling and secure encryption of summaries using Rot13.- Enhanced data organization, improved search functionality, and ensured secure encryption of media content for seamless user interaction.- Implemented a modular design with robust exception handling for efficient file I/O and data integrity.	
HTML Tag Validator	Fall 2023
<ul style="list-style-type: none">- Developed a Windows Form App to load and process HTML files using a GUI interface. Utilized a generic Stack<T> to check if container tags are balanced.- Designed solutions to ensure proper tag balancing by ignoring non-container tags and handling unmatched opening/closing tags.- Improved efficiency in managing and validating HTML documents, ensuring accurate tag structure for web development projects.- Implemented a modular approach with a Process method to handle tag validation, enhancing code maintainability and scalability.	
Employee Management System	Fall 2023
<ul style="list-style-type: none">- Enhanced a file-based system to manage and sort Employee objects using generics and lambda expressions.- Replaced manual sorting with built-in List<T> methods and eliminated redundant methods by utilizing properties and modular code.- Streamlined the management of Employee data with efficient sorting and flexible property usage, improving code maintainability and performance.- Designed a highly modularized Main method that dynamically sorts Employee objects, ensuring a scalable and maintainable solution.	
Automated Web Testing Project	Fall 2023
<ul style="list-style-type: none">- Developed automated web tests using Selenium WebDriver and Katalon Recorder to validate website functionality across multiple browsers, including Chrome, Firefox, and Edge.- Automated repetitive testing tasks, improving efficiency by reducing manual testing efforts and ensuring consistent test coverage.- Enhanced software reliability by identifying and fixing issues more effectively, leading to a more robust and user-friendly web application.- Integrated test cases into Visual Studio for seamless execution and collaboration, ensuring comprehensive testing across different platforms.	
Optimized Battleship Game Strategy Development	Fall 2024
<ul style="list-style-type: none">- Designed and implemented an advanced probability-based algorithm to optimize shot selection and minimize moves in the Battleship game.- Utilized a checkerboard hunting strategy and dynamic probability updates to locate ships efficiently and prioritize adjacent cells after a hit.- Achieved outstanding results an average shot score of 97.20 and completion of 10,000 games in 1498 ms, surpassing benchmarks.- Integrated data structures like HashSet and Queue for fast duplicate detection and target management, ensuring robust gameplay logic.- Developed with a focus on adherence to API constraints, reproducibility using seeded random numbers, and efficient tracking of sunk ships.	
Tims Product and Order Management System	Fall 2024
<ul style="list-style-type: none">- Implemented polymorphism, abstract classes, and interfaces for managing TimsProduct and Consumable items, along with creating static factory methods for product creation and handling customer orders.- Enhanced the system with new Consumable and non-consumable products, incorporating methods like <code>getConsumptionMethod()</code> and <code>getAmountDue()</code> to manage and display product and order details.	