Dominic Casillano

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Education

University of Toronto September 2018 - June 2023
Honours Bachelor of Science, Computer Science Major *Toronto, ON*

- GPA: 3.56/4.0
- Relevant Coursework:
  - Data Structures and Analysis, Algorithm Design and Analysis, Operating Systems, Introduction to Software Engineering, Database System Technology, Compilers and Interpreters, Computer Networks

Technical Skills

Languages: Python, JavaScript, C, C++, Java, C#, SQL, HTML, CSS
Frameworks: React, NodeJS, EmberJS, Express, Django REST Framework, ASP.NET
Developer Tools: Git, VS Code, Visual Studio, AWS

Experience

Junior Software Developer January 2024 - Present
FGF Brands *Toronto, ON*

- Reduced the running time of the Power BI report-to-image process from 1 hour to 2 minutes using the C# Task Parallel Library, allowing the office data walls to visualize performance indicators using near real-time information
- Engineered requested features and released a new version of the Wonderbrands production planner using ASP.NET and Telerik Kendo UI to let users easily optimize the production and delivery of baked goods
- Designed a script in SQL Server to mass upload 2400 files from an Excel sheet to the company document portal and link them to search filters so that users no longer need to link each file separately

Software Engineer Intern May 2021 - April 2022
iManage Canada Technologies *Toronto, ON*

- Investigated slow REST API endpoints used for data logging and improved their performance up to 99% by implementing database indexing and modifying the Django ORM to optimize queries
- Designed a database schema change and engineered new APIs using Python and the Django REST Framework to give customers access to specific data for their usage reports
- Refactored the signing package generator using the XState state machine library to create a module that manages complex data states clearly and resolves 100% of the pre-existing issues
- Restructured the database backfill process and wrote a training document for 12 engineers to prevent application slowdown by minimizing AWS CPU credit usage

Projects

Palyglot

- Developed an online messaging platform that gives language learners a space to connect and chat with others to improve their written literacy in a foreign language
- Built a REST API using NodeJS, Express, and MongoDB to handle requests from the React frontend
- Created a matchmaking system to match users who are learning the same language(s) and have similar interests

YouTube Karaoke

- Constructed a web application using JavaScript and React that takes a YouTube music video and adds lyrics that get highlighted as they are spoken to create a karaoke experience
- Retrieved videos and their respective lyrics using the YouTube API and Genius API
- Created an API using NodeJS and Express that uses the Gentle aligner to align the video speech with the lyrics

Key-Value Database

- Built a memory table with an AVL tree to optimize data fetching and batch writes to minimize I/O operations
- Implemented an extendible hash table to store frequently accessed data in memory, resulting in constant-time performance for some queries
- Optimized writes and lookups by refactoring the database directory to store files in an LSM tree with bloom filters