SIDDHARTH BHATTACHARJEE

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SKILLS

Languages and frameworks: React (Redux, Konva), Angular 8/JS, Ruby (Jekyll), C#, Node (TensorFlow.js, Express), Python (OpenCV, NumPy, Django, Flask), Golang, Java (J2EE, Spring), C++, SQL, NoSQL, Unix, Powershell
Tools: AWS, Kubernetes, ASP.NET Framework, LINQ, RESTful Services, gRPC, Protobuf, RDBMS.

WORK EXPERIENCE

DBRS Morningstar | Software Engineer Intern | Toronto, ON   May 2019 - August 2019
- Developed components in **Angular 8** and corresponding **RESTful API** endpoints as part of new workflow to streamline ratings process for analysts.
- Designed bulk import tool allowing analysts to instantiate **1000**+ ratings through Excel spreadsheets.
- Created **view models** used for PDF generation to automate data retrieval, reducing workflow for analysts by **45%**.
- Spearheaded cleanup tasks to detect approximately **1500** instances of bad data in production database using data analytics techniques using **Python and SQL**.

Waterloop | Desktop Systems Developer | Waterloo, ON   Jan 2019 - April 2019
- Designed **Golang** server and **Protobuf** interfaces for data streaming between desktop server and pod over **WebSockets**.
- Created **Javascript + MongoDB** client to test and log incoming pod information.

HORIBA Test Automation | Software Developer | Burlington, ON   Sep 2018 - Dec 2018
- Designed data models for approximately **40 device drivers**, reducing processing time of resources by **90%**.
- Refactored XML resources using C# scripts and 2-way data binding to create modular and cleaner schemas, reducing file size of device drivers by **30%-40%**.

Bronte College | Software Developer | Mississauga, ON   Jan 2018 - April 2018
- Optimized UX and reliability by adding features, fixing bugs, and refactoring code for internal **J2EE CRM portal.**
- Implemented payment and registration features for AP exams for student portal designed in **AngularJS**.
- Configured CRM back-end in **JSP** and student portal back-end in **PHP**. Utilized **MySQL** as primary database.

PROJECTS

Twitch Data CLI | Python, Pandas, Matplotlib   ⚙
- Real-time CLI data tool to analyze incoming chat messages on popular live streaming platform, Twitch.
- Developed script to monitor over **40,000+ streamed messages per hour** sent over **IRC protocol using WebSockets** and display relevant information like **user engagement and viewer count.**
- Leveraged **regular expressions and Pandas** to parse raw data into **dataframes** for further analysis and **data visualization with Matplotlib.**

Palmpong-v2 | React-Konva, TensorFlow.js   ⚙
- Built clone of arcade game 'pong' using React-Konva wherein the user controls the paddle with their palms.
- Image recognition leveraged on **TensorFlow.js's BodyPix model**

Daily Wallpaper | Python, PowerShell   ⚙
- Windows tool which updates the lockscreen on a daily basis from a curated list of artworks from **the Metropolitan Museum of Art Collection API**.
- Leveraged multi-threading to obtain valid entries from API. Formatted image using **PIL** library.

EDUCATION

Bachelor of Applied Science in Computer Engineering | University of Waterloo   Class of 2023
Current Academic Term - **2B**