Dante Mazza

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Languages: **Python, C, C++, Java, JavaScript, MATLAB/Octave, SQL, Verilog, VHDL, RISC-V**
Libraries/Frameworks: **Flask, Node.js**, **React, Numpy, Pandas, TensorFlow, Keras, PyTorch**
Tools/Infrastructure: **Git, Docker, Linux, AWS (S3), IBM CP**

Work Experience

Software Engineer | KCM Solutions — Jan 2021 - Apr 2021

- Deployed a chatbot and built **Node.js** services to provide dynamic functionality; interfaced with Watson v2 API, Twilio API, and hosted on IBM cloud platform
- Leveraged the MS Graph API to build a **Python** service for coordinating meetings with Watson users according to client's free/busy times, freeing up several weekly hours of scheduling time
- Created containerized **CentOS** enterprise software environments with **Docker/Compose** and **bash** scripting for centralized use; established network communication, LDAP authentication, database connections

Machine Learning Engineer | Wisedocs (startup) — Sept 2020 - Sep 2021 (part-time)

- Determined pipeline evaluation metrics and evaluated with **SQLite** queries and **Pandas**, streamling efforts
- Prototyped signature/logo removal algorithms with **OpenCV/NumPy**
- Developed rules-based **Python** AI to support ML prediction; increased indexation ability by 10x

May 2020 - Aug 2020

- Designed and wrote **Python** image and text JSON/PDF feature pipelines (**S3, NumPy, Pandas, Pickle, multiprocessing**), facilitating dataset transformation and reducing model deployment time by 75%
- Performed R&D via protoyping, implementing, and evaluating CNN (**Tensorflow, Keras**), NLP (**Huggingface** Transformers), k-means clustering (**sklearn**), hybrid models
- Developed a training method for pre-serialized datasets via **Keras**' batch interface, reduced training time by 90%
- Designed and wrote document clustering algorithms that reduced prediction time by 85% and several other ML pipeline features/bug-fixes in **Python** to support model deployments while practicing unit testing with **pytest**

Software Developer | SAP SE — Sept 2019 - Dec 2019

- Delivered **Python/Selenium** GUI test coverage with a 95% pass rate across multiple software versions (designed **XPath** queries to account for varying **HTML** DOMs)
- Repaired and refactored **Java/TestNG** performance test suite and sped up case runtime by 60%

Projects

Boolean Solver - github.com/dantemazza/boolean-solver | www.booleansolver.com

- **Flask** app that employs Quine-McCluskey/Petrick's Method for simplifying boolean expressions, making it a convenient option for least-cost digital circuit design and homework verification

Language Classifier - github.com/dantemazza/langram

- **PyTorch** neural network that accurately classifies the language of text input with n-gram frequency analysis

Desktop Chess - github.com/dantemazza/desktop-chess

- **Java** chess application that uses object-oriented design principles and a **JavaFX** UI

Education

University of Waterloo | Candidate for BASc, Computer Engineering — Expected 2023

- **Deans Honour's List** (first year)
- Relevant coursework: Systems Programming & Concurrency, Operating Systems, Networks (**C**), Compilers (**Java**), Data Structures and Algorithms (**C++**)