Wila Braga

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WORK EXPERIENCE

Deep Analytics LLC   **Montpelier, VT**
Machine Learning Engineer   *May, 2024 - Present*

Centuria, Inc.   **Remote**
Application Programmer II   *Nov, 2023 - May, 2024*
- Developer on several diverse front and back-end weather systems of the National Data Buoy Center (NDBC)
- Rewrote multiple MATLAB quality-control programs into Java and deployed to AWS server for cloud migration, saving hundreds in MATLAB licensing fees and maximizing code up-time

Application Programmer I   *Nov, 2022 - Nov, 2023*
- Independently developed and tested the data-ingest initiative with SOFAR Ocean - a partner organization that sails out drifting buoys, retrieving their real-time data stream using an AWS S3 bucket, formatting it into BUFR files using the ecCodes python library, and internally distributing with Bash over FTPS
- Reviewed the NDBC's website redesign, correcting dozens of PHP and JS bugs that would have caused crashes
- Wrote a technical document outlining developer best practices when sanitizing user input, compiled by interviewing senior developers and researching OWASP, and designed model code snippets in different languages

College of Computing, Georgia Tech   **Atlanta, GA; Barcelona, ES**
Teaching Assistant   *Aug 2019 - Aug, 2022*
- TA over five semesters, teaching Natural Language Processing, Intro to Databases, and Discrete Mathematics
- Served my last semester as a study abroad teaching and program assistant in Barcelona, Spain after graduating
- Taught dozens of lectures and office hours, developing my technical communication skills

CHAI Lab, Georgia Tech Research Institute   **Remote**
Graduate Research Assistant   *Aug, 2021 - Dec, 2021*
- Contracted by the Centers for Disease Control and Prevention to conduct NLP research for the Covid-19 response
- Compiled spreadsheets of companies' return-to-work policies with an article web scraper and spaCy's part-of-speech tagging and entity recognition tools
- Flagged patients with Covid-like symptoms in doctors' notes by writing advanced Regex matching statements

Assurant, Inc   **Remote**
Data Science Intern   *May, 2021 - Aug, 2021*
- Documented IBM Fairness 360's efficacy in reducing model biases, motivating a future bias-reduction project
- Co-lead a research initiative to reduce customer service-level agreement times through novel machine-learning-model caching techniques
- Tested caching methods on real data, spanning hundreds of thousands of entries in distributed databases, on Databricks with SkLearn PCA, encoding, and feature importance functions and PySpark random forests
- Presented methodology and Matplotlib visualizations to multiple departments and VP stakeholders

EDUCATION

Georgia Institute of Technology   **Atlanta, GA**
MS, Computer Science   *Dec, 2021*
- GPA: 3.80
- Relevant Coursework: Computer Vision, Data Visualization, Simulation of Biology

BS, Computer Science   *Dec, 2020*

- Highest Honors
- GPA: 3.95
- Relevant Coursework: Natural Language Processing, Machine Learning, Automata

PROJECTS

Culinary Recipe Generation: Compared quality of recipes generated with a GPT transformer versus custom Keras RNNs
Video Stabilizer: Smoothed video motion by translating a novel Linear Program equation into a Python application
Gait Evolution: Simulated and recorded the types of locomotion a body evolves through genetic algorithms
Art Clustering: K-Means clustered artwork from the Cleveland Museum of Art and visualized it using D3.js

SKILLS

Programming: Python (8+ years), Java (8+ years), SQL (4 years), Javascript (3 years), C (3 years), R (new), Rust (new)
Libraries: PySpark, SkLearn, Pandas, Numpy, PyTorch, Tensorflow, NLTK, spaCy, matplotlib, OpenCV, D3.js, Node.js
Technical: Linux, Jupyter, Databricks, Tableau, Docker, LaTeX, MySQL, MongoDB, REST, Git, AWS S3, CUDA
World Languages: English (Native), Portuguese (Native - Spoken), Spanish (Advanced)
Hobbies/Volunteer: Reading (Sci-Fi, Classics), Watch Repair, Cooking and Homebrewing, Volunteer Webmaster