ila**Vienneau**

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Education

Georgia Institute of Technology — Expected May, 2021
B.S. Computer Science, Artificial Intelligence & Devices
GPA: 3.7

Skills

Python, Java, C, C++, MATLAB, Docker, AWS, JavaScript, CSS, HTML, git, Unix and Linux command line, Linux VM environments
Microservices, Computer Vision, Signal Processing, Circuit Design

Work Experience

Capital One — Richmond, VA
Data Engineering Intern, Card and Small Business Tech – Gallery Department — June 2019 – August 2019

Gallery is the interface between customers and developers at Capital One. Among other responsibilities, it receives 9000 – 15000 paper and fax customer documents daily from which metadata is manually extracted to create cases and service customer needs.

- Built a Convolutional Neural Network (CNN) model for classification of scanned images of ingested documents (Python).
- Combined machine learning models and OCR technology to create a service that could partially automate the document ingestion pipeline within Gallery with respect to document classification and metadata extraction.
- Updated and tested microservices used in the document classification pipeline.
- Held meetings with international vendors providing Optical Character Recognition (OCR) and Intelligent Character Recognition (ICR) software and compiled reports on their accuracy for our use case to inform future decisions of vendor selection.

Georgia Institute of Technology — Atlanta, GA
Teaching Assistant, CS 1332 – Data Structures and Algorithms — January 2019 – May 2019

- Held weekly 1.5 hour recitations for approximately 50 students as well as 3+ hours of office hours weekly open to approximately 300 students to teach and tutor core concepts.
- Graded and provided feedback on homework assignments and exams (Java).
- Utilized J-Unit testing to test data structures students built in homework assignments.

Emory University — Atlanta, GA
Undergraduate Researcher, Keilholz Laboratory — November 2017 – May 2018

Keilholz Lab is a computational neuroscience research lab dedicated to characterizing the dynamics of neural functional connectivity in the resting state of pathogenic and non-pathogenic human brain states.

- Evaluated signal processing techniques such as continuous wavelet transforms and Fourier transforms to recommend future methods for pre-processing fMRI data as an input to computational models.
- Built a model using t-distributed stochastic neighbor embedding (t-SNE) to extract patterns in Blood Oxygen Level Dependent (BOLD) signal in the resting state of the brain in non-pathogenic states. This algorithm is now used by the lab to identify patterns whose absence in resting state brains is a marker for disease (MATLAB).

MiMedx — Marietta, GA
Research and Development Intern, R&D Team — June 2017 – August 2017

MiMedx is a tissue engineering company which created placenta-derived tissue allografts for wound healing applications.

- Analyzed the elution profile of different tissue allograft products to write a proprietary report guiding future product direction.

Product Development

Febrile Seizure Detection

- Lead a team to design, model, and build a novel device for the detection of febrile seizures 20 minutes prior to onset, and upon detection inflate a head-cushion to protect the wearer from associated head injuries (MATLAB, hardware).

Selective Noise Cancellation

- Designed a device that selectively noise cancels sound that triggers panic responses in patients suffering from Misophonia (Hardware).