ALEXANDRA LEFEVRE

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EDUCATION

University of Michigan **April 2017**
B.S. Computer Science, GPA 3.2/4.0
Relevant Coursework: Algorithms and Data Structures, Computer Organization, Computer Security, Software Engineering, Natural Language Processing, Linear Algebra, Discrete Mathematics, Linear Algebra, Regressive Modeling

EXPERIENCE

TD Ameritrade **May 2016 – Aug 2016**
Data Analytics Intern
- Used Natural Language Processing techniques (LDA, HDP, Clustering) to build classification system for client interactions
- Analyzed whether data can be used for both supervised and unsupervised machine learning techniques
- Built a custom financial model to analyze whether macroeconomic shocks have significant impact on equity returns
- Implemented advanced statistical techniques such as maximum likelihood estimation and general autoregressive conditionally heteroskedastic financial models

Federal Reserve Bank **May 2015 – Aug 2015**
Statistics Intern
- Automated data collection and analysis process by writing VBA scripts that communicated with SQL databases
- Led and performed thorough analysis to ensure data quality for the Federal Reserve's deposit-related reporting series
- Managed communication with depository institutions to further investigate data fluctuations

PROJECTS

University of Michigan **Jan 2016 – Present**
Calibration Instrument for NASA
- Working as software engineer on a multidisciplinary team
- Created software to analyze and acquire data from particle accelerator sensor in real time
- Fabricated UI for real-time graphics of sensor position
- Debugged software with sensor and National Instrument hardware
- Sensor and software will be used in preparation for Europa mission for NASA
- Used Python and NiDAQ and currently migrating software to C++ and Arduino

Piano Web Application for Limited Motor Ability **Sep 2016 – Present**
- Music application for users with limited motor abilities in one or both hands
- Enables user to compose and play complex pieces of music
- Uses Python, Python Flask, HTML, CSS, JavaScript

SKILLS

Languages: C++, Python, Java, JavaScript, HTML, CSS, R, SQL
Natural Languages: English, French, Russian

ACTIVITIES

Michigan Hackers Sep 2015 – Aug 2016
Michigan Refugee Assistance Program Sep 2016 – Present