Andrew Lyubovsky

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EDUCATION

Carnegie Mellon University - School of Computer Science   Pittsburgh, PA
Masters in **Intelligent Information Systems**   Dec 2022

College of William and Mary   Williamsburg, VA
Bachelors of Science in **Computer Science** and **Neuroscience** (Double Major) | GPA: 3.83/4.00   May 2021

Coursework of Interest:
- Machine Learning & Neural Networks, Computational Neuroscience, Philosophy of Technology
- Coursera: Machine Learning by Stanford, Deep Learning Specialization, NLP Specialization

RESEARCH & INTERNSHIPS

William & Mary Computer Science   Williamsburg, VA
Research Experience for Undergraduates (REU)   June 2020 - May 2021
- Visualized Omegawave, GPS, Survey, and Training Load data using **matplotlib,** to identify injury predictors in Football.
- Modeled player injuries during games using **Logistic Regression** with state of art performance.
- "**Lyubovsky, A**., Liu, Z., Watson, A., et. al. "A Pain Free Nociceptor: Predicting Football Injuries with Machine Learning." *Smart Health* 21 (2021) (Accepted)

William & Mary Computer Science   Williamsburg, VA
Monroe Scholar Research   April 2019 - May 2020
- Modeled and showed feasibility of magnet based joint angle sensor with **matplotlib**. (Patent pending)
- Built sensor, predicting shoulder angles with up to 10 degree error using **tensorflow**.
- "Watson, A., **Lyubovsky, A**., Koltermann, K., & Zhou, G. (2021, May). "Magneto: Joint Angle Analysis Using an Electromagnet-Based Sensing Method." In *Proceedings of the 20th International Conference on Information Processing in Sensor Networks (co-located with CPS-IoT Week 2021)* (pp. 1-14)."

Cougaar Software Inc.   Fairfax, VA
Software Engineer Associate I Intern   Jul 2017- Aug 2017
- Implemented **Sphinx 4** Voice Recognition and **Mary TTS** text-to-speech synthesis for a robot prototype.
- Organized commands that a robot received to integrate them with preexisting company software.

INDEPENDENT PROJECTS

Cryptocurrency Predictor   July 2021-present
- Scraping twitter data to model cryptocurrency trends resulting in a 20% monthly return on personal investments.
- Modeling daily tweet frequencies and price changes to create a decision tree for 5 cryptocurrencies in **Python.**

Random Text Generator   Nov. 2015- April 2019
- Created a random text generator using a **LSTM** next word prediction model in **Deeplearning4j**.
- Published a website with **Pivotal** using **Java servlets** that created sentences using a restricted vocabulary.

SKILLS

Languages: Python & Jupiter Notebooks (Pandas, Matplotlib, Numpy, Scipy, Keras, OpenCV, Tensorflow), Java, C, HTML/CSS
Advanced Math: Probability, Statistics, Linear Algebra
Natural Language Processing: LSTMs, Sntwitter (twitter scraper), Tokenization, Natural Language Generation

Other: Git, Linux, Signal processing, Data interpolation, Data modeling, ML model testing, Web development