Alexia Puttellas

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EDUCATION

Vanderbilt University   **Nashville, TN**
Bachelor of Science | Majors: Applied Mathematics & Cognitive Studies | Minor: Data Science   **May 2024**
Cumulative GPA: 3.73/4.00
Relevant Coursework: Statistical Analysis, Multivariable Calculus, Differential Equations, Mathematical Logic, Topology, Computers & Ethics, Scientific Computing for Psychology, Computational Neuroscience, Linguistics
Campus Engagement: Alternative Spring Break, VandyApps, VandyHacks, Women in Computing

TECHNICAL SKILLS

Languages: C++, Java, HTML, Python, R, Ruby, SQL
Python Libraries: PyTorch, TensorFlow, NumPy, Pandas, Apache Arrow
Software: MATLAB, Git, Excel, Power BI, AWS, Tableau
Mathematics: Information Theory, Numerical Analysis, Probability & Statistics

EXPERIENCE

Vanderbilt Biomedical Informatics Summer Program   **Nashville, TN**
Research Intern   **June – August 2022**
- Worked under the mentorship of Dr. Cosmin Bejan, Assistant Professor in VU Medical Center, to derive clinical insight using machine learning (ML) and natural language processing (NLP) solutions
- Evaluated 5 state-of-the-art language models on extracting the status of 3 categories of substance use from ~2000 clinical notes
- Presented abstract at the 2022 Council on Undergraduate Research REU Symposium
- Abstract accepted into the 2023 AMIA Informatics Summit

Big Data & Science Engineering Group   **Nashville, TN**
Research Assistant   **February – March 2022**
- Studied and supported ML and computer vision techniques for video classification
- Designed and implemented code for experiments exploring individual differences in human visual object recognition with deep learning and correlation analysis

Text Mining Group   **Nashville, TN**
Research Assistant   **January – March 2021**
- Developed computational methods utilizing Apache Spark, BaseX, and NetsBlox to improve library service efficiency
- Presented findings to graduate students, principal investigators, and chairs of computer science and engineering departments at the undergraduate research symposium

PROJECTS

Visualizing Neural Networks | project link   **January 2022**
- Created a YouTube video on the basic principles of neural networks and deep learning
- Animated in Python and included original code material

Generative Art | project link   **August 2021**
- Scraped and pre-processed ~1000 images of paintings to train Nvidia's StyleGAN2
- Generated novel paintings and employed image sampling to create 3D renders

ADDITIONAL SKILLS & INTERESTS

Skills: Adobe Creative Cloud, ArcGIS, WordPress
Interests: Big Data, Education Technology, FC Barcelona, Photography