Zeyu Tan

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EDUCATION

University of Wisconsin Madison, United States Aug 2018 ~ Jun 2022
B.S. in Computer Science
GPA: **3.86/4.0**
Core Courses: Introduction to Algorithm (A), Programming III (A), Machine Organization and Programming (A), Matrix Methods in Machine Learning (A), Introduction of Artificial Intelligence (A), Calculus & Analytic Geometry (A), Calc-Functns of Variables (A), Elem Matrix & Linear Algebra (A)

RESEARCH EXPERIENCE

Computer Science Department | University of Wisconsin Madison April 2020 ~ July 2020
Professor: Jerry Zhu
Project: ***Diagnose COVID-19 Pneumonia via CNN and Transfer Learning***
- Determined if the Patient gets Pneumonia given the chest X-ray image
- Designed a deep neural model from the VGG-16 pre-trained convolutional model
- Trained the model on the training set obtained from Kaggle
- Conducted comprehensive experiments and individually wrote a project report

Computer Science Department | University of Wisconsin Madison April 2020 ~ May 2020
Professor: Matthew Malloy
Project: ***Reliability Analysis of Statistical Transformations like PCA and ICA***
- Mathematic proved the validities of Independent Component Analysis (ICA) and Principal Component Analysis (PCA)
- Explained how ICA and PCA work and compared them from a mathematic view
- Implement PCA and ICA from scratch and conducted experiments to evaluate their performances
- Led a team of 3 members and individually completed the mathematical proof part

Computer Science Department | University of Wisconsin Madison Oct 2019 ~ Nov 2019
Professor: Deb Deppeler
Project: ***Visualizing Social Relation Networks via the Graphical User Interface***
- Visualized the interpersonal relationship among network nodes dynamically in social relation networks via the Graphical User Interface (GUI)
- Individually developed a GUI that visualized dynamical attributes and relations using JavaFX
- Implemented the Dijkstra's shortest path algorithm to find the shortest path of relationships between any two people that has been added
- Led a team of a team of 4 members and accomplished a well-written research report

WORKING EXPERIENCE

Office Experience Department, Microsoft | NLP Engineer April 2021 ~ July 2021

Project: Power Point Reuse Slides Function development

- Crawl source files from the web and extract text content
- Segmentize and tokenize text content using Natural Language Toolkit(NLTK library)
- Find the Part of Speech tagging for each word.
- Find the Part of Speech tagging for each Use the unigram chuncker trained by CoNLL 2000 corpus train set to locate noun phrase chunk
- Recognize the important named entity in the text and extract the core content of the article
- By analyzing frequency of different part of speech tagging, find the most frequently occurring important words.
- Individually wrote an project report

AWARDS AND HONORS

- Project Competition for Matrix Methods in Machine Learning, ranked 5th May 2020
- Term honor: Dean's list Fall 2019
- Term honor: Dean's list Spring 2020
- Term honor: Dean's list Spring 2021

ACTIVITIES AND INTERESTS

- Team Leader, 300Km Charity Cycling to raise money for autistic children Oct 2017
- Club member, High School Badminton Club Jan 2016 - May 2018
- Club member, University Badminton Club Sep 2018 - July 2021

SKILLS

- **Programming Languages** C/C++, Java, Python, R
- **Machine Learning Tools** TensorFlow, Keras, Matplotlib, Scipy, NLTK
- **Development Platforms** GitHub, Linux, Mac
- **Standard English Test:** TOEFL: R (28) L (29) S (23) W (26)