Jilyan Bianca Dy

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github.com/jilyan-dy

Education

M.S. Computer Science February 2020 - January 2021

National Taiwan University of Science and Technology
Cumulative GPA: 4.17 out of 4.3
Computer Vision Laboratory

M.S. Computer Science September 2019 - January 2021

De La Salle University-Manila

B.S. Computer Science with Specialization in Software Engineering August 2015 - October 2019

De La Salle University-Manila
Cumulative GPA: 3.234 out of 4.0
Center for Language Technologies

Work Experience

National Taiwan University of Science and Technology February 2021 - Present

Computer Vision Research Assistant

- Led multiple research projects involving image retargeting, face recognition, and video deinterlacing, which resulted in multiple peer-reviewed publications.
- Tools used: Python, NumPy, PyTorch, Torchvision, SciPy

Oral Storytelling Entity (ORSEN) November 2018 - January 2020

Natural Language Processing Research Assistant

- Software that enables collaborative storytelling between chatbots and children.
- Designed and implemented ORSEN's knowledge acquisition and validation features, which improved the affect score by 13.7% and the children's overall enjoyment by 14.6%.
- Implemented using Python, NeuralCoref, SpaCy, and Firebase.

Creating Info - Web and Mobile Development January 2018 - March 2018

Software Engineering Intern

- Successfully maintained and improved a POS system by addressing over 50 client-reported issues in 3 months. This involved debugging both frontend and backend code and adding new features based on client requests.
- Modified views and forms to better suit each client's needs, resulting in a more user-friendly and efficient system.

Personal Projects

Food Tracker github.com/jilyan-dy/food_tracker

- Designed and developed a web application to streamline food inventory management for individuals and collective households. This application aims to help users maintain a well-organized pantry, significantly reducing food waste and preventing overstocking. The system alerts users to expired items and allows them to track and update their shared items within a household effortlessly.
- Implemented using React, Sass, TypeScript, Flask, and MySQL.

Resume Website jilyandy.com

- Designed and deployed a website that showcases my experiences and accomplishments. Developed different UI components, such as a carousel and vertical timeline, which were utilized to make navigation intuitive and aesthetically pleasing.
- Implemented using React, Gatsby, and Sass.

Technical Skills

Proficient: Python, Javascript, React, Java, SQL, NoSQL

Familiar: TypeScript, Flask, MaterialUI, PyTorch, NeuralCoref, SpaCy

Expertise and Interests

Web Development, Computer Vision, Deep Learning, Natural Language Processing

Research Publications

Dy, J. B., Virtusio, J. J., Tan, D. S., Lin, Y. X., Ilao, J., Chen, Y. Y., & Hua, K. L. (2023). **MCGAN: mask controlled generative adversarial network for image retargeting**. Neural Computing and Applications, 35(14), 10497-10509.

Zhou, Y. T., **Dy, J. B.**, Hsu, S. C., Hsu, Y. L., Yang, C. L., & Hua, K. L. (2023). **SSRFace: a face recognition framework against shallow data**. Multimedia Tools and Applications, 82(12), 18617-18633.

Yeh, Y. C., **Dy, J.**, Huang, T. M., Chen, Y. Y., & Hua, K. L. (2022). **VDNet: video deinterlacing network based on coarse adaptive module and deformable recurrent residual network**. Neural Computing and Applications, 34(15), 12861-12874.

Lin, J. D., Lin, H. H., **Dy, J.**, Chen, J. C., Tanveer, M., Razzak, I., & Hua, K. L. (2021). **Lightweight face anti-spoofing network for telehealth applications**. IEEE Journal of Biomedical and Health Informatics, 26(5), 1987-1996.

Dy, J., Brito, C., Tan, V., Lola, J., & Ong, E. (2021). **Acquiring Commonsense Knowledge during Collaborative Storytelling**. IOP Conference Series: Materials Science and Engineering, 1077(1), 012023.

Ureta, J., Brito, C. I., **Dy, J. B**., Santos, K. A., Villaluna, W., & Ong, E. (2020). **At home with Alexa: A tale of two conversational agents**. International Conference on Text, Speech, and Dialogue, 12284, 495-503.