

Yu Nie

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Experience

Software Engineer intern

SpeakIn Technologies Co.,Ltd. Shanghai, China | May 2021 – July 2021

- Utilized Python to clean **2TB** audio data in batches with multiprocessing, including trans-coding and extracting content.
- Utilized **Shell** to test and analyze the score of trained models.
- Built a face detection system based on MMDetection with **Pytorch**.

research assistant, backend team

Program Analysis as a Service, Purdue University | Apr 2021 – Sep 2021

- Developed a **C programming analysis software** with python, which can be used for grading students' homework.
- Designed Makefile for test cases and json file generator with **C** and **Python**.
- Utilized American Fuzzy Lop to debug and provide feedback to students' homework.

research assistant, algorithm team

Purdue IEEE Racing, Purdue University | Sep 2021 – May 2022

- Developed a **Python** script that can collect 50k+ pictures in CARLA simulator.
- implemented color based segmentation to detect road area.
- Implement self-driving related algorithms and techniques including object detection, recognition Object classification.

Projects

Mask YOLO | 2022

- Developed algorithm with **python** and **pytorch** based on YOLOv3, which can display a mask on detected objects.
- Implement the YOLO network and loss function to narrow down the bounding boxes and highlight object area.

delivery web application | 2022, Purdue University

- Create a web application using **Python** and **Django** that can process basic requests of customers and restaurant owners.
- Built a database with **MySQL**, Object-relational mapping and stored procedure that supports register, sign up and search food with name and price range.

Kaggle competition | 2021, Purdue University

- Built a fake-review prediction model using **Convolutional Neural Network** with accuracy of 98.75% (rank: 5/105 in class).
- Developed an algorithm with **Python** and **LightGBM** to predict whether or not the lender will pay off their loan (rank: 4/78 in class).

Education

Bachelor of Science in Computer Science and Mathematics

Purdue University, West Lafayette, IN

Aug 2019 - May 2022, Cum. GPA: 3.80 / 4.0

- Relevant Coursework: Statistical Theory, Data Mining & Machine Learning, Information System, Intro Relational Db Sy.

Associate in Computer Science

Cascadia College, Bothell, WA | sep 2016 - Mar 2019, Cum. GPA: 3.95 / 4.0

Certifications

- Dean's list & Semester Honors, Fall 2019 - Spring 2022
- Mu Sigma Rho certificate, May 2022
- President' Honor for superior scholastic achievement, Fall 2017 - Winter 2018
- PHI THETA KAPPA SOCIETY certificate, Oct 2018