## Pai Peng

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### **OVERVIEW**

As a bilingual in Spanish and Chinese, I bring a distinctive global perspective shaped by my experiences across different countries. I moved and lived Spain since I was 12 years old until my sophomore year in an A.I. Degree at a top University in Spain. After gaining admission to a prestigious U.S. university for Computer Science, I made the decision to relocate to the United States in pursuit of a higher-quality education and broader opportunities. I am actively seeking a Data Scientist/Data Engineer intern or Software Developer intern

### **EDUCATION**

## Double major in Computer Science & in Data Science | current GPA 3.9~

University of Wisconsin-Madison

- 2023 Spring Dean's List

Transferred Dec. 2022 -

## BSC. in Artificial Intelligence (European Union supported) | score: 8.9/10

Autonomous University of Barcelona

Sept. 2021 - Dec. 2022

- Course-Honor in Linear Algebra and Programming
- Data Engineering, Machine Learning, Multivariable Calculus, Statistic, Computer Vision Outstanding

### RESEARCH EXPERIENCE

# Undergraduate Researcher: Machine Learning for Demixing Components in Complex Mixtures | UWisconsin-Madison Feb. 2023 –

- Transformed chemical signals into characteristic peaks(CP) using Clusters and Raman Spectra properties
- Converted characteristic peaks into Machine Learning readable formats
- Used Grid-Search to find the **optimal hyperparameters** for the deep learning models
- Visualized the model's learning process using TensorBoard and Matplotlib
- First Author Candidate of the paper

Supervisor: H. Wei

Research Assistant: Benchmarking different Deep Learning Low Light Image Enhancement Algorithms | Computer Vision Center Barcelona July 2021 - Dec. 2022

- Automated image dataset acquisition of different YCbCr scale by controlling light conditions using python OpenCV
- Automated multiple lab devices using C# to detect the real saturation and brightness of the image acquired
- Tested deep learning algorithms such as KinD, KinDPlus+ and Zero-Reference that augment Low Light images

Supervisor: J. Vázquez Corral

### **PROJECTS & ORGANIZATIONS**

### Finalist Team at Aguas de Barcelona Data Challenge

Sept. 2022 – Dec. 2022

Team Leader

- Deployed an AI model named **NeuralProphet**, a combination of the ARIMA and Neural Network, for time-series water consumption anomaly detection and prediction.
- Streamlined the **anomaly detection** based on geolocation, time, tourism, and the number of water meters in each zone.
- Conducted analysis on domestic water consumption following the impact of **COVID** and the recovery of tourism.
- Selected as one of the Data Science Finalist Projects.

Demo in Spanish

Sept. 2022 - Oct. 2022

Spam Email Detection
- Implemented DNN, SVM and Random Forest to determine spam emails.

- achieved a precision rate of 94%.
- Desgined a **new metric namely phi** s showed the potential to improve the spam detection.

### Chinese Student Association at UAB – Head of Department of Planning

2021 - 2022

- Organized and Planned several small engagement events

News interview at La Fundació UAB

## PROFESSIONAL SKILLS

Programming Languages: Python, Java, C++, SQL, C##, R, Prolog, Matlab

Machine Learning: Pytorch, TensorFlow, Steamlit, Pandas, Numpy, matplotlib, OpenCV

Language Skills: Bilingual in Spanish and Chinese Fluent in Englishand Intermediate in Catalan