Derick Shi

dericks1real@gmail.com | 574-327-5829 | www.linkedin.com/in/derick-shi-real

EDUCATION

University of Notre Dame Notre Dame, IN 46556 *May 2027*
Bachelor of Science GPA: 3.85
Major: Computer Science and ACMS (Applied Computational Mathematics and Statistics) Dean's List 2023

PROJECTS

Riverbend Community Math Center Website *October 2023 - December 2023*
- Implemented a note frequency detector, various number games, and piano key player on their activities webpage utilizing HTML, Javascript, and CSS to improve engagement among middle school students.

QL2 Data Analysis *October 2023 - December 2023*
- Analyzed and reported insight to a representative on a dataset of past retail information using Pandas, Python, and MatLab. Specifically focusing on Wayfair, and its price correlations with competitors in the retail market.

Distracted Driver Recognition *August 2022*
- Developed a recognition software in python with machine learning algorithms and models such as KNN, CNN, and packages like Tensorflow to detect distracted drivers out of an image dataset.

PwC STEM Consulting | Student International Business Council *January 2024 - April 2024*
- Analyzed cyber insurance market trends and past claim data for an arbitrary cyber insurance company to provide strategic insights and recommendations for growth using Python, Matlab, and Pandas library.
- Delivered comprehensive insights encompassing the client's expansion strategy and risk mitigation approach in light of emerging challenges such as nation-state cyberattacks.

Medical Deep Learning Image Analysis App *May 2024 - June 2024*
- Developed deep learning models using YOLOv8 to classify and construct bounding boxes on medical images
- Utilized a Streamlit frontend framework to construct an interactive web app displaying results with Python scripts

WORK/RESEARCH EXPERIENCE

Retail Banking Intern | Notre Dame Federal Credit Union *July 2024 - August 2024*
- Analyzed loan data with Pandas library on Jupyter notebooks to identify market growth potential and processed 100+ financial transactions daily with CuBase software, ensuring data accuracy and compliance

Undergraduate Research Assistant | Notre Dame Computer Vision Research Lab *October 2023 - May 2024*
- Constructed custom machine learning models utilizing YOLOv5 framework to analyze and process extensive video datasets, generating CSV files optimized for future training purposes.
- Employed Label Studio to meticulously validate and refine output data, ensuring precision in object classification

Consulting Intern | Lucy Family Institute for Data & Society Civic Innovation Lab *June 2022 - July 2022*
- Researched and explored four potential solutions to reduce a $70,000 appraisal gap for Habitat for Humanity.
- Developed surveys to discern homeowner interests and compiled a detailed analysis in a white paper.
- Presented findings to the St. Joseph County Habitat Board of Directors

EXTRACURRICULARS/ACTIVITIES

Visa Upskill Tech Pathways Selected Attendee *June 2024 - July 2024*
- Acquired technical interview skills and gained insights into the operations of fintech companies like Visa

Campus Bike Connect Start-up Co-Founder | IDEA Center Notre Dame, IN 46556 *March 2024 - Present*
- Launching a bike sharing solution using smart locks powered with Arduino and developing React frontend
- Prototyping physical locks that integrates digital user interaction with Fusion 360 constructed casing

SIG (Susquehanna International Group) Freshman Discovery Day Selected Attendee *2024*
- Attended a webinar that introduced fundamental market concepts and quantitative trading strategies

Math Academic Super Bowl Captain *2019 - 2023*
- Spearheaded the state finalist team at the Indiana Academic Super Bowl State Competition

Mathcounts Head Coach | Discovery Middle School 10050 Brummitt Rd, Granger, IN 46530 *2019 - 2023*
- Prepared and presented over 20 lessons on a variety of Mathcounts competition topics.
- Provided over 300 total hours of active presentations and tutelage to over 60 students.

TECHNICAL AND LANGUAGE SKILLS

Proficient Skills: Python, C++, Excel **Familiar Skills:** JavaScript, HTML, CSS, MySQL, Matlab, SolidWorks
PCEP – Certified Entry-Level Python Programmer certification
Framew: English (fluent), Mandarin (conversational) AIME: 6 / Putnam Score: 9