Eason Ying

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EDUCATION

University of Notre Dame | Notre Dame, IN — May 2028
Bachelor of Science — *GPA: 3.0+*
Major: Mechanical Engineering

LEADERSHIP AND ACTIVITIES

Research in Environmental Fluid Dynamics |Notre Dame, IN — September 2024 – Present
Researcher

- Designed and conducted experiments to analyze the diffusion of freshwater pools within saltwater environments, simulating equatorial phenomena between Indonesia and Australia.
- Collaborated with a multidisciplinary team to improve experimental setups and enhance measurement accuracy, leading to actionable insights on fluid interactions.

Innovation 4 Impact |Notre Dame, IN — September 2024 – Present
Project Member

- Contributed to ideating and prototyping solutions targeting sustainability challenges, focusing on renewable energy systems.
- Spearheaded a project on eco-friendly alternatives to single-use plastics, conducting market research and designing a prototype using CAD software.
- Presented findings to faculty and external stakeholders, receiving positive feedback for actionable implementation strategies.

Robotics Football |Notre Dame, IN — September 2024 – Present
Construction Team Member

- Fabricated and assembled mechanical components for robotic players, utilizing SolidWorks and 3D printing to optimize structural integrity.
- Integrated mechanical systems, ensuring seamless operation during competitive gameplay.

MIT SciencePolicyReview |Notre Dame, IN — September 2024 – Present
Co-Author

- Co-authored a policy review titled "Inculcating User-Autonomy in AI Systems," focusing on integrating ethical principles and user empowerment into AI frameworks.
- Conducted comprehensive research on international AI regulations, including GDPR and the EU AI Act, to recommend policy enhancements.
- Presented draft findings to academic reviewers, contributing to a publication set for Volume IV of the MIT Science Policy Review.

The Art Tech Lab HK |Hong Kong, China — July 2024 – August 2024
Contributor

- Collaborated with a software engineer to design and build an interactive VR art hub, integrating artwork into a 3D virtual space.
- Contributed to modeling immersive meditation experiences within a VR environment, blending art with engineering principles.
- Gained hands-on experience in the intersection of technology and creativity, sparking a passion for promoting sustainability through innovative visual perspectives.
- Leveraged virtual reality to inspire awareness and engagement with environmental and cultural themes.

Nepal Trip|Kathmandu, Nepal — July 2024 – August 2024

Researcher

- Conducted interviews with local leaders and community members to explore the impact of urbanization on sustainability and cultural preservation.
- Documented insights through storytelling and academic writing, providing a holistic perspective on sustainable development.
- Gained cross-cultural communication skills and an understanding of the role of culture in shaping engineering and environmental solutions.
- Wrote a paper for my USEM class detailing this experience and presenting my research

Electrical and Mechanical Services Department of Hong Kong | Hong Kong, China Oct 2022 – March 2023

Leader

- Led a team to victory in the District Cooling System competition by designing energy-efficient solutions for urban sustainability.
- Built an AI-powered chatbot using Pytorch, providing user-friendly automation for project interactions, and developed a functional website using HTML to showcase project outcomes.
- Secured Overall First Place and the Final Design Prize by demonstrating innovative system designs and practical implementation strategies.

RELATED COURSEWORK OR PROJECTS

Engineering Design Course | University of Notre Dame Aug 2024 - Dec 2024

- Designed and prototyped a sensor housing system to monitor outdoor air quality in the South Bend area, addressing environmental challenges such as air pollution from wildfires and local sources.
- Utilized SolidWorks for 3D modeling and collaborated in a team of four classmates to develop iterations of a sensor housing with an opening/closing mechanism powered by a servo motor and Arduino-based microcontroller, ensuring electronics protection.
- Conducted testing and iteration through two design phases, focusing on form, fit, and function, and made improvements based on feedback from testing to enhance durability, alignment, and overall performance

TECHNICAL AND LANGUAGE SKILLS

Technical: Excel, Word, Python, HTML/CSS, SolidWorks
Language: Mandarin Fluent