EDRIAN PAUL LIAO

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EDUCATION

Duke University, GPA: 3.93   **Expected: May 2025**
BSE Electrical and Computer Engineering, BS Computer Science (ML/AI Concentration)   *Durham, NC*

Certificate: Science and Society - Digital Intelligence Track
Relevant Coursework: Deep Neural Nets (Graduate), Machine Learning, Artificial Intelligence, Signals and Systems,
Advanced Multivariable Calculus, Probability, Operating Systems, Environmental Science and Policy

RESEARCH INTERESTS

Machine learning for climate change monitoring and disaster risk management, Remote sensing using satellites and
drones, Data- and media-driven storytelling for environmental justice

RESEARCH EXPERIENCE

Bivariate vulnerability-severity index for Angola's drought response system   **June 2024 – Present**
Independent Study · Prof. Danielle Wood · Dr. Sharif Islam   *Cambridge, MA*

Using spatial causal inference to model the urban heat island effect   **Jan 2024 – Present**
Independent Study · Prof. David Carlson · **[Code] [Poster]**   *Durham, NC*

Long-term earthquake prediction using time-series forecasting models   **May 2023 – Present**
Research Group @ Duke · Dr. Enmao Diao · **[Code]**   *Durham, NC*

Tracking climate change causes and impacts with satellites and AI   **May – Jul 2022**
Duke Climate+ · Prof. Kyle Bradbury · Prof. Jordan Malof · **[Website] [Code] [Poster]**   *Durham, NC*

TEACHING EXPERIENCE

Teaching Assistant, Elements of Machine Learning (CS 371)   **Fall 2024**

Teaching Assistant, Signals and Systems (ECE 280)   **Fall 2024**

Teaching Assistant, Intro to Artificial Intelligence (CS 370)   **Spr 2024**

Teaching Assistant, Fundamentals of Electrical and Computer Engineering (ECE 110)   **Spr 2023, Fall 24, Spr 2024**

Teaching Assistant, Calculus I (Math 111) and II (Math 112)   **Spr 2022, Fall 2022**

SELECTED PROJECTS

HarvestNet 2.0: Compressed CNNs and Augmented Dataset for Harvest Pile Detection   **Apr 2024**
Graduate Class Project, Deep Neural Networks · **[Paper][Code][Poster]**   *Durham, NC*

A Call for Better Cheap Labor Conditions within the AI Revolution   **Apr 2024**
Case Study, AI Ethics · **[Paper]**   *Durham, NC*

Web Application for Project *Kayamanan*   **Oct 2022 – Apr 2024**
Technify Initiative, Lead Software Engineer · **[Code]**   *Durham, NC*

PlanetTales: Climate change experiences in the rural Philippines   **Jul - Sep 2023**
Independent Study · Prof. Kyle Bradbury · **[Website] [Code] [Poster]**   *Cauayan, Philippines*

LEADERSHIP & MENTORSHIP EXPERIENCES

President and Co-Founder, Duke Pamilya: Filipino Students Association   **2022 - Present**

Mentor, CAUSE Philippines: College apps mentorship program for low-income Filipinos   **2021 - Present**

Co-Founder, Tutor, Pi-oneers: STEM Education Non-profit   **2020 - 2022**

Co-Organizer, Project *Manantaw*: Initiative for typhoon victims in the Philippines   **2020**

SKILLS

Languages: Python, C, Java, LaTex, HTML/CSS, JavaScript, MATLAB, C++
Libraries, Databases, and Frameworks: Node.js, PyTorch, Google Earth Engine, Google Firebase, MongoDB, NumPy, Matplotlib
Devops: Git, Linux, Docker, Bash, GitHub Projects, Agile Product Development

HONORS & AWARDS

Karsh International Scholarship, Duke University	**2021-2025**
Winner, HackDuke: Code for Good	**2023**
Outstanding Teaching Assistant Citation, Duke Electrical and Computer Engineering Dept.	**2023**
Dean's List with Distinction (4 out of 6 semesters), Duke University	**2021-2024**
Youth Excellence in Science Award, Department of Science and Technology (DOST) - Philippines	**2021**