DUN-MING (BRANDON) HUANG

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EDUCATION

University of California, Berkeley

B.A., Cognitive Science and Computer Science (Double Major)

Selection of Courseworks:

COMPSCI 189: Introduction to Machine Learning (A+) EECS 127: Optimization Models in Engineering (A+)

COMPSCI 285: Deep Reinforcement Learning (Concurrent)

 $August,\ 2021\ -\ May,\ 2025$ Computer Science GPA: 4.00/4.00

All-Course GPA: 3.99/4.00

RESEARCH EXPERIENCE

Research Intern, Max Planck Institute for Empirical Aesthetics

July (June) - August 2023

Topic 1: Novel MCMC Methods to Sample Linguistic Objects from Populations and LLMs

Topic 2: Human-in-Loop Annotation and Fine-Tunings of Machine Translations

Topic 3: Unsupervised Cross-Domain Alignment of High-Dimensional Psychological Spaces

There are two concurrent collaborations with this research group after internship.

As of time of writing, three publications are expected from development of these progresses.

Supervisor: Dr. Nori Jacoby, Computational Auditory Perception Research Group

PROJECTS

Provably Robust Deep Classifiers Against Adversarial Attack

U.C. Berkeley

May 2023

Course project as a replication study of adversarial attacks to dense networks on MNIST digit images. Reenacted all mathematical works in references to provide further implementation insights.

Proposed novel initiation patterns for L_2 adversarial attack, reducing dense networks accuracy to 0%.

Student Researcher

Creative Commons and U.C. Berkeley

September - December 2023

Revive Creative Common's data-driven business analysis projects on product usage from 5 year dormancy.

Host public presentation at U.C. Berkeley detailing analysis results on global scaling of CC products. Awarded Data Insight Award by U.C. Berkeley amongst 50 other competing groups.

Project LiP: Personal Assistant for Mental Management

Self-exploration HCI Project

March-April, June-August 2022

Constructed from scratch a full-stack agent for periodic interventions to prevent burnout.

Self-studied front-end engineering and back-end DBMS, and statistical learners predicting fatigue.

Hands-on experience for face expression recognition across 7 emotion classes at 68% accuracy.

ACADEMIC AND ADMINISTRATIVE EXPERIENCES

Undergraduate Student Instructor

U.C. Berkeley

August - December 2023

Course: DATA C100- Principles and Techniques of Data Science

Course Coordinator at Computer Science Mentor

U.C. Berkeley

August - December 2023

A student-run organization that provides guidance and resources through free group tutoring sessions. Co-administrate one of seven branches at this organization with 30+ expected members.

Hosted cross-branch workshops, established public documentations on pedagogical content production.

Academic Student Employee

January 2022 - December 2023 Course Reader at DATA 100 Course Reader at EECS 16A U.C. Berkeley

January - May 2023 August - December 2022

AWARDS AND SCHOLARSHIPS

Data Insights Award at Data Science Discovery, U.C. Berkeley

December, 2022
Recognized for detailed execution of entire data science life cycle amongst 50+ other groups in U.C. Berkeley's Data Science Discovery program.