Jirachaya "Fern" Limprayoon

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EDUCATION

Carnegie Mellon University

Pittsburgh, PA expected May 2022

B.S. in Artificial Intelligence, GPA: 3.81/4.00

- Phi Beta Kappa: November 2021

- Dean's List, High Honors: December 2020, May 2021

- Dean's List: May 2019

EXPERIENCE

The Robotics Institute, Carnegie Mellon University

Research Assistant at Transportation, Bots, & Disability Lab

Pittsburgh, PA

September 2019–Present

Advisor: Aaron Steinfeld

Conducting research on how a mobile robot should rendezvous with a visually impaired user in indoor settings
in a safe and socially acceptable manner such that the user can find it easily and trust it to guide them to their
desired destination.

Stanford HCI Group, Stanford University

Stanford, CA

Summer Undergraduate Research Fellowship

June 2021–August 2021

Advisor: Michael Bernstein

— Conducted research on whether a language model like GPT-3 can mimic the way humans talk to it and potentially act in line with the beliefs humans have about it, which can help us understand if a self-fulfilling prophecy phenomenon can occur and what can we do to ensure that human-chatbot interaction abides by specific community guidelines.

SCB Abacus

Bangkok, Thailand May 2019–August 2019

Software Development Intern

- Developed a software development kit (SDK) called MoneyThunder (Available on Google Play) that serves the underbanked population in Thailand. It functions as a pipeline that asynchronously extracts users' data from IOS and Android mobile devices, transforms raw data, sends them to cloud storage, and notifies backend services during the process for a digital lending platform.
- Designed a JSON schema that transforms raw users' data and represents them in a meaningful format to facilitate feature engineering and credit-scoring processes.
- Supported the development of a mobile background task scheduling module that periodically extracts users' behavior and sends daily reports to cloud storage for long-term credit-monitorings.

Kasikorn Labs, Kasikorn Business Technology Group

Nonthaburi, Thailand June 2017–July 2017

Product Management Intern

- Completed the design of customer journey, UI prototype mockups and defined the business metrics for four features on lifestyle banking and merchant mobile apps.

 Supported the new product planning and architecture of a blockchain-based digital identity and document storage.

Publications

1. **Jirachaya "Fern" Limprayoon**, Prithu Pareek, Xiang Zhi Tan, and Aaron Steinfeld. 2021. Robot Trajectories When Approaching a User with a Visual Impairment. In The 23rd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '21), October 18–22, 2021, Virtual Event, USA. ACM, New York, NY, USA, 4 pages. https://doi.org/10.1145/3441852.3476538.

TEACHING

• School of Computer Science, Carnegie Mellon University

January 2020–March 2020

Teaching Assistant for Concepts in Artificial Intelligence (07-180)

- Designed both written and programming assignments, as well as their corresponding auto-grader scripts.
- Assisted students in understanding introductory Artificial Intelligence concepts and some applications by hosting weekly office hours.

Skills Languages

• Technical: Python, C, Swift, Kotlin, SML, ROS, Git, MATLAB, SQL, C++, Firebase, HTML, PyTorch, TensorFlow, R

• Design: Figma, InDesign, Miro

Thai: nativeEnglish: fluent

PROJECTS

• Thai Help Thai (2019)

With a team of seven, designed a proof of concept for a database platform for the Thai Embassy to connect Thai and Thai American students, recruiters, and professionals in the US and Thailand.

- Conducted contextual inquiries and semi-structured interview with recruiters in Thailand to understand their pain points of connecting to Thai/Thai American students abroad.
- Led the design of customer journey and UI prototype mockups, and privacy protocols.
- project website: https://www.behance.net/gallery/84336335/Thai-Help-Thai.

• Red Robot Hackathon (2018)

With a team of four, built a smartphone-controlled robot with a mechanism to capture a table tennis ball by using two wheels spinning towards each other to compete in a Quidditch (a fictional sport from Harry Potter) tournament.

- Won GM Motors Best Driving Award.
- MATLAB: Score to Sound (2016–2018)

Applied the concepts of optical music recognition and text-to-speech to create a learning tool that allows people with visual impairments to learn music more independently.

Extracurricular Activities

• School of Computer Science (SCS) Dean's Undergraduate Advisory Committee

2021-Present

Founder and Chair of the Accommodations for Blind and Deaf Students Subcommittee: Meet biweekly to discuss challenges and opportunities that undergraduate peers experience and meet periodically with the Dean to suggest solutions and ideas on an advisory basis.

• SCS4Accessibility - SCS4All

2021-Present

Founding Member: Meet biweekly to discuss challenges that School of Computer Science (undergraduate and graduate) students with disabilities are facing and opportunities to make SCS classes, seminars, hackathons, and other activities more inclusive to everyone. Meet periodically with the SCS Associate Dean of Diversity, Equity and Inclusion to suggest solutions and ideas on an advisory basis.

• ABLE CMU 2021–Present

Participate in discussions around advocacy and social support for students with disabilities and chronic illnesses.

• SIAM - Undergraduate Thai Society

2018-Present

Senior Supervisor (2021), Co-President (2020), External Chair (2019): Organize campus-wide events to promote Thai culture to the CMU and Pittsburgh communities. Organize internal events to help members who are interested learn more about Thai culture. Connect CMU students to Thai companies and other Thai organizations. Render assistance on Thai-related matters to the CMU administration and CMU Thailand, a collaboration between CMU and King Mongkut's Institute of Technology Ladkrabang.

• Bangkok School for the Blind

2015-Present

Volunteer Peer Tutor: Teach middle and high school students math, science, music, and English (both online and in person). Peer Counseling: help the students cope with both academic and non-academic stress.

• The No Parking Players - Scotch'n'Soda Theatre

2019

Participated in improvised comedy workshops and rehearsal twice a week. Performed at an annual Workshopper Showcase.