# Nattapat Intarachumnum

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#### **EDUCATION**

# Lehigh University, Bethlehem, Pennsylvania

Graduation year: 2022

B.S. Mechanical Engineering; Biotechnology minor

University High school, Irvine, California

Graduated 2018

#### RESEARCH AND WORK EXPERIENCE

### A Low-Cost Point-of-Care Screening Device for Sickle Cell Anemia

May 2019 - Present

Research Assistant at Lehigh University

- Research cost-efficient metrologies to decrease the price of sick cell anemia detection in order to allow early detection and proper meditation for Sickle Cell Anemia in low-and-middle-income countries, specifically in Sierra Leone
- Quantify the intensity of dots developed on test strips utilizing the Image J program to quantify.
- Run the test strips; perform dialysis and beads conjugation. The device has been tested using purified HbA and HbS; HbA blood samples from a blood bank located in Bethlehem, PA.
- Discuss the progress, further plans, and future strategies during the weekly team meetings.
- The team has partnered with World Hope International (WHI) Sierra Leone. In August 2019, the team travelled to Sierra Leone to test the device in the real field, and to justify the need for a Sickle Cell disease diagnosis device.

# Team member at Poke Me; Irvine, CA

June 2019

Handle customer personalizes orders; ensure that ingredients are kept at certain temperature for the best quality; manage inventory of raw materials.

# Front Desk Assistant at Linderman Library; Lehigh University

August 2018

Assist the visitors of the library; monitor the return and loan of the books; pick up phone calls and contact

### LEADERSHIP EXPERIENCE

# Thai Student Association; Lehigh University

September 2018

Current position: President

Found the club, along with 2 peers, to bring more diversity to campus and to share our unique culture; Oversee other executive boards; plan out events throughout the year; collaborate with other organizations on campus that promotes cultural inclusivity, such as ACS and SEAL

### Resident Assistant (Gryphon); Lehigh University

December 2019

Was selected to uphold the school's mission of supporting residents in their personal, professional, and civic development; plan activities and gatherings within my assigned residential area; ensure the well-being of my residents through one-on-one personal conversations, "G-chat"; promote inclusivity within the community; enable residents to feel safe and supported.

#### AWARDS

# Finalist for the "2020 John Hopskins Healthcare Design Competition"

April 2020

• Lehigh Sickle Cell Diagnostics was one of the 12 teams selected among more than 225 applications from US & abroad, under "Global health issue" category invited to present our project. Our project proves that if successfully implemented, we would be able to positively impact lives of millions globally. I was one of the two speakers giving 15 minutes presentation and Q&A follow up session.

### **SHE Scholarship**

### SHE Program, UCI Medical Center

May 2017

• Through my essay submission and academic interests, I conveyed passion for health-related field and was selected. Top 20 Essay entrees out of 100 for best conveyed passion in health-related fields

# CAMPUS AND COMMUNITY INVOLVEMENT

Akile Dance team; Lehigh University Student Scholar Institute (LUSSI); Asian Cultural Society (ACS); South East Asia at Lehigh (SEAL); Society of Scientists and Engineers (SASE); FIRST; the Gryphon Society

### ADDITIONAL SKILLS

Language: Thai (C2), English (C2).

Software: Excel, Java, MATLAB, Arduino, Imagel, SolidWorks; Powerpoint; Photography and video-editing.