PORT*FOLIO*

Bachelor of Engineering Program in Software and Knowledge Engineering (International Program)

Kasetsart University

KASETSART UNIVERSITY · SINCE 1943

GOLD MEDAL
CSITF 8th (Shanghai)

1st Runner-Up
Global Gamejam
2025
ANTXDPU

Finali
Start Up
Season 5

Semi-Final
NSC:27

Semi-Final
CEDT Innovation
Summit 2025

NAPAT
TOOPTHONG

Thanyaburi School , Pathum Thani

KHAOKONG

NAPAT TOOPTHONG

CONTACT

PHONE:
+66 95 607 3690

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FACEBOOK:
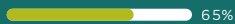**Adxive Day**

GITHUB:
AdxiveDay

LANGUAGES

English 65%
Thai (Native) 95%

INTERESTED

Music Theory ♫

Badminton 🏸

Data Science Project

Investment

MOTTO

"One's own happiness is a reflection of the happiness of their loved ones."

Napat Toopthong

Young Inventor

My name is Napat Toopthong. I am passionate about technology and innovation, and I have gained a lot of experience through numerous competitions, both domestically and internationally. I am particularly interested in innovation, Web Development, and Game Development. Additionally, I have strong leadership skills, enjoy managing teams, and have extensive experience in business.

PERSONAL DETAIL

Name: Napat Toopthong

Nickname: Khaokong   **Age:** 17   **Birth:** 7 May 2008

Ethnicity: Thai   **Nationality:** Thai

Religion: Buddhist   **Blood Type:** O

Adress: 129/8 Moo 1 , Bueng Yitho, Thanyaburi, Pathum Thani, Thailand

EDUCATION

2011-2013 — **Phongsawan Witthaya Saimai School**
Kindergarten 1-3

2014-2019 — **Chokchai Rangsit School**
Primary 1-6

2020-2025 — **Thanyaburi School**
Study Plan: Science-Math
Secondary 1-6

TRANSCRIPT

GPAX
3.86

English GPAX
3.86

Physics GPAX
3.80

Math GPAX
4.00

Statement of Purpose *(SOP)*

As a child, I poured much of my time into **Minecraft**. A game that allowed me to turn imagination into buildings. Everything changed when I discovered the Command Block. The block makes Minecraft more interesting and mechanical. Learning commands like /execute, /give, and /setblock is my first class of programming. I learned to chain commands and debug my creations, which taught me the basics of coding logic. I have always been passionate about building mechanics, but I didn't know that this passion was going to open the door to the realm of programming and begin the journey of **Software Development**.

During high school, I had an opportunity to learn programming for the first time. Starting with JavaScript to build a website, this made me realize that I'm playing Minecraft in the real world, sparked my interest in coding, and I dedicated myself to learning programming. Subsequently, I developed **"3tubP,"** a brown rice advocacy web application powered by NextJS and Gemini API, my first time developing a full-stack project and using AI API. Working with AI technology for the first time was Challenging. I spent hours debugging issues that could have been resolved quickly with relevant guidance. This experience showed me not only my lack of AI knowledge, but also that excellent partners and expert guidelines are essential. Therefore, **I'm seeking the Software Engineering Program to plug those gaps.**

After extensive research, I found that the **Software and Knowledge Engineering Program at Kasetsart University** is the perfect place for learning. Attending the **"Let Me Tried Camp 4"** confirmed my decision, the courses on Machine Learning, Software Architecture, and AI Applications. These courses provided the critical knowledge for developing future innovations. Besides, the international curriculum will greatly improve my English skills, which will be important for future global study and career. Working with talented students in camp caused me to choose this program. The energetic environment will push me forward and help me overcome my limitations in learning.

What started with a single game has become a **journey as a young developer.** I realize that the world is facing many problems. I want to create innovations to solve those problems, improve well-being, and ultimately save lives as a Software Developer.

Collar Care

Smart dog collar for real-time heart disease risk assessment.

10% of all dogs seen in general veterinary practice are diagnosed with **heart disease.**

Collar Care is a smart dog collar designed to help detect canine heart disease early. Spotting the illness before it gets serious. This innovation combines **IoT systems with AI**, using sensors MAX30102 to track heart rate, MLX90614, and MPU6050 to monitor temperature and movement. The data gathered by these sensors helps detect unusual values and assess risk using a dataset processed through the **Gemini API**. The information is sent to a real-time web-based platform, which allows users to monitor their dog's physiological data and risk status.
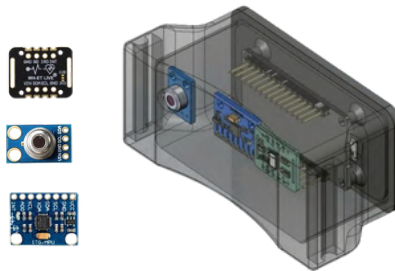
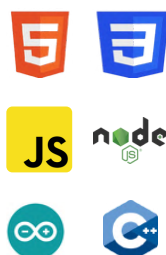
Collar with three sensors

Responsive Web-App

This innovation was entered into **The 8th China (Shanghai) International Invention & Innovation Expo 2025** in Shanghai, China, and won two major awards for Thailand.

What I've got?

- Teamwork
- Leadership
- Confidence
- Business Acumen

Role   ● Full-Stack   ● IoT Dev   ● Team Leader

The 8th China (Shanghai) International Invention & Innovation Expo 2025

International

Gold Medal & Honorable Mention Award

Tech Stack

Innovation Interview

Innovation Explainer Video

3tubP

Brown Rice Advocacy Web App

The problem stems from the rising rate of diabetes and other diet-related diseases in Thailand, which have increased by **32% over the last six years.** Research from Harvard indicates that consuming brown rice can help reduce the risk of these illnesses.
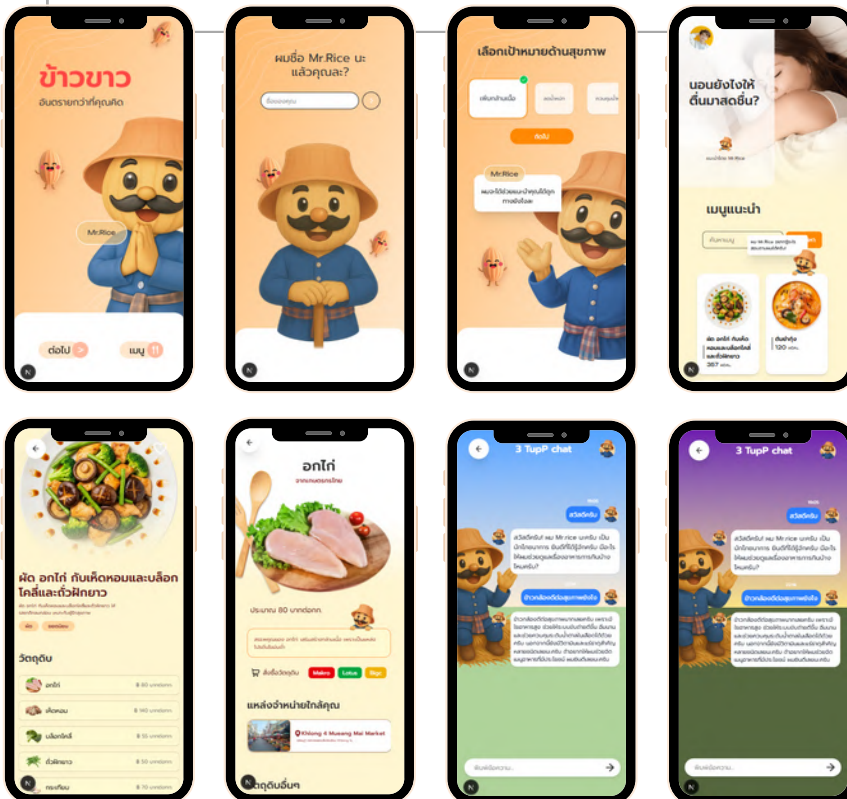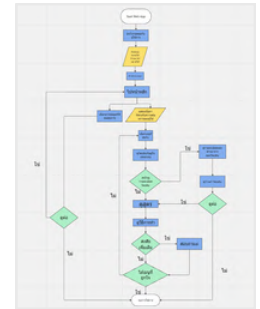

Harvard Health Publishing
HARVARD MEDICAL SCHOOL

The glycemic index: How brown rice and white rice compare

The glycemic index (GI) is a scoring system that ranks foods from 0 to 100 based on how much they increase blood sugar. The lower the GI score of a food, the lower and slower your blood sugar climbs after you eat. Glycemic index is particularly important for people with diabetes, who are more likely to experience quick, high blood sugar spikes than those without the condition.

White rice has a high glycemic index, in the range of 73 ± 4. Brown rice is categorized as a medium glycemic index food, with a GI of 68 ± 4.

Eating white rice is also linked to a higher risk of developing type 2 diabetes while eating brown rice is linked to a lower risk.

3tubP is a web application encouraging Thai people to change their eating behavior from white rice to brown rice, helping reduce the risk of diabetes among the Thai population. The app offers over 300 brown rice recipes from the database, which are tailored to the user's goals, restrictions, and lifestyle through the **Personalization** Analyst system, powered by the **Gemini API**. Each recipe includes the cooking instructions and a list of ingredients. Users can also search nearby stores to purchase ingredients using the **Google Map API** through the web app. Moreover, there is an AI Chatbot that role of a consultant for changing eating habits.

Tech Stack

The 27th National Software Contest :NSC 2025

National

Semi-final round

Website
Production Project

What I've got?

- Teamwork
- API Usage
- Responsive Website Technical

● Front-End Dev   ● UX-UI Design

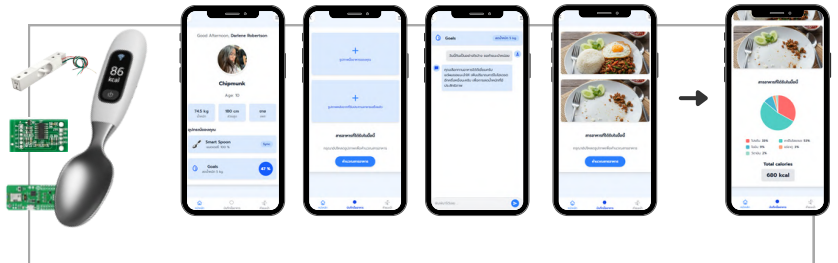# Spoon So Cool

A IoT Spoon designed to simplify diet management.

National

Finalist

Spoon So Cool is a smart IoT innovation that engages with a web application. When you use this spoon for eating, it will collect the food weight data and send it to the web app. In the web app, users have to take a picture of food before and after eating, and the photo will be calculated for the nutrient ratio by **Vision-Transformer AI.** With weight and ratio data, it will provide you with the precise food nutrients and calories.

Tech Stack

What I've got?

- Pitching Skill
- AI Usage technique
- Business Acumen

● Front-End Dev

This project has an opportunity to enter the Show Me What You Got season 5 competition and was selected to be a representative of Central Thailand as a **finalist team** from over a hundred teams, only 12 teams left.

Prup-IELTS

The free IELTS practicing platform

Prup-IELTS is a platform designed **to help learning English for IELTS more conveniently.** The website, including the Reading page, generated questions by the **Gemini API** refer to the real IELTS test. The writing page for improving essay skills, checked by AI, gives the band result and recommendation. There is also a course page linked to the IELTS video from YouTube to help your learning easier.
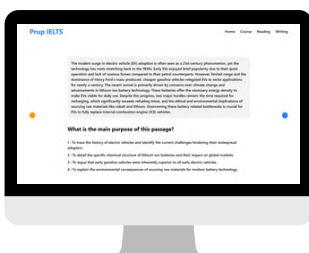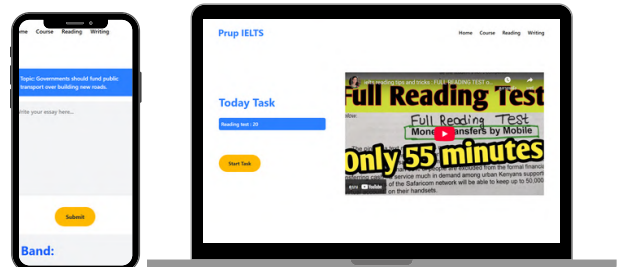
What I've got?

- API Usage
- Responsive Website Technical

● Full-Stack Dev

● No team

The reason I made this project is that I have found learning IELTS is too expensive for me. I think the AI technology can defeat this problem, so I use the AI to help me learning by developing the IELTS platform inspired by **Prep-IELTS** that costs over 15,000 baht. I also shared my platform with my friend to learn and improving the English skill together.

Math Showdown

An educational game designed to combat Math Anxiety in children.


Due to the current situation, the traditional method of teaching mathematics has caused some Thai children to develop '**Math Anxiety**'. To address this issue, we developed Math Showdown, an educational **2D top-down role-playing game.** The goal of this game is to make learning mathematics fun by requiring the player to **answer a math question** before being able to attack an enemy. This method will help address the issue of Math Anxiety in children.

CΞDT
Innovation Summit 2025

Tech Stack
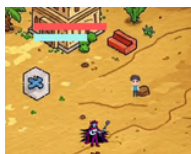
Do a math question before attacking
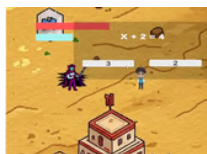
CEDT Innovation Summit 2025

National **Semi-Final Round**

What I've got?

- Leadership
- Teamwork
- Business Acumen

● Team Leader ● Game Dev

I entered this project into the **CEDT Innovation Summit 2025,** an educational software competition. I was selected as one of the **top 36 teams out of 430.** At this event, I gained crucial knowledge in pitching, idea creation, problem-solving, and business, which has been valuable to me for a future development.

Horror Game

Roblox horror game (Demo).
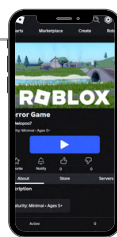
My first Roblox horror game. The story is about a guy who has seen the body in his house, and his mother has disappeared; therefore, he decided to go into the forest to search for his mother. This game has been developed with the **Lua language**, which is quite different from C#. I have to learn many new things, such as **Access Methods, Remote Events, and Client-Server data transformation**. All of the scripts I developed myself, without the aid of AI.
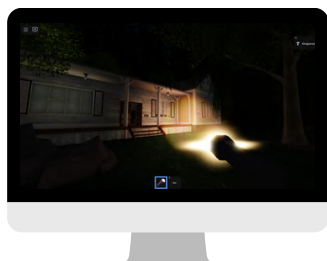
Tech Stack

Client-Side Touch → Remote Event → ServerScriptService → Client-Side
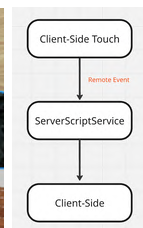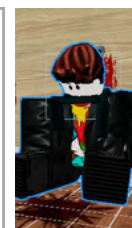
What I've got?

- Client-Server transformation technique

● No team

● Scripter

This game is **my first Roblox game** after learning Lua for a week. The reason I chose to learn the Lua language and use Roblox Studio is because I see **future opportunities for Roblox games** to surpass games built on other engines, primarily due to its easy accessibility. This includes various business opportunities, such as the fact that many universities are holding their Open Houses within Roblox, which demonstrates the platform's influence in the current world.

Game Link

Game Preview

Bubbling Through The Sky

2D clicker game where players navigate through obstacles.

This work is a 2D game based on the theme **"Bubble"**. The core concept of the game is an underwater bubble that wants to reach the moon. The player uses a **mouse to click** and guide the bubble slowly upward through the ocean and into the sky, all while avoiding obstacles that would cause it to pop.
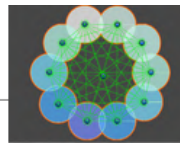
What I've got?

- Teamwork
- Pitching Skill

● Level Design

● UX-UI Design

Tech Stack

The **unique feature** of the game is the character design by **Mesh Network** in a circle, which made the movement **smooth and fluid**. The feature, when it's hit, one bubble pops, making the player's control more difficult, is also a mechanic of the game.
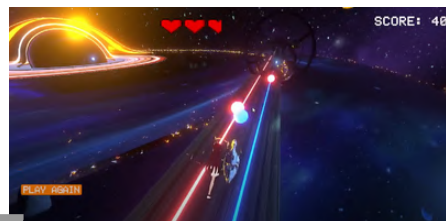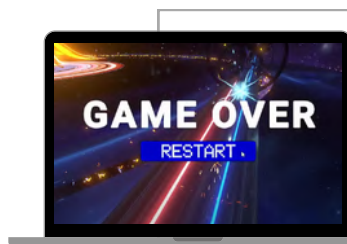
ANTXDPU Global Gamejam 2025

National

1st Runner-Up and 2,000 Baht prize

Global Gamejam Website

Download Game for free

Game Development **Other Project**

Space War RYTHM

This is my first game. I made it a space-based **rhythm game** where the player needs to shoot down enemy spaceships with the highest possible score. I use the **speed game feature,** which means that if time passes, the speed of the bullet is going to increase more.

Tech Stack

Game Preview

Gatling Hook

Tech Stack

This is a **First-Person Shooter** game that utilizes speedrun mechanics. The mission is to eliminate all the enemies, both ground and airborne units. The main aspect of the game is the fluid and fast movement based on **Physic Movement like Rigidbody,** which is powered by a gatling gun that also allows more **freedom for your attacks.**

Game Preview
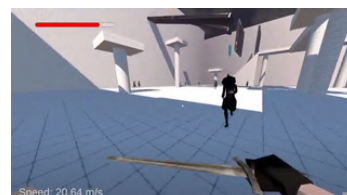
Activity

Let Me Tire #4
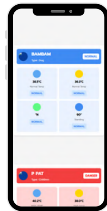
I have an opportunity to join Let Me Tire Camp 4 by Com-En Kasetsart-University. This gave me a valuable experience, including learning and teamwork in the mini hackathon. The vibrant learning environment and the excellent students at this camp were an inspiration, which **strengthened my motivation to study at Kasetsart-University.**

What I've got?

- Pitching Skill
- Leadership
- Micro:bit using

● Front-End Dev   ● Team Leader

Tech Stack

What I've got?

- Confidence
- Leadership
- Teamwork

● Front-End Dev   ● Team Leader

Tech Stack

IT CAMP #21

For the 21st ITCAMP, I created a **story-driven website** based on the theme "Ice." The site features a game about a polar bear losing its home to global warming, aiming to raise awareness about the issue. My team's project was selected as **one of seven group** to present in the main hall of the KMITL IT Faculty, and as the team leader, I handled the coding, concept development, and presentation, all without AI.

Outstanding Student Award 2024

I was selected as an Outstanding Student in Non-Formal Education for academic years 2024, This award encourages me to be a **good role model for younger students** and to continue my studies diligently, so I can use my knowledge to develop the country in the future.

### What I've got?

- Confidence
- Leadership

Main Trainer of Hamster Hub

From August 2024, I studied at Hamster Hub, a programming institute. I was able to **showcase my skills**, which led to me being **trusted** with Hamster Hub projects, such as 3TubP.

I also had the opportunity to **teach students how to build websites** at the Port69 event, which had over **300 participants** across three sessions. Furthermore, during the Port69 event, I served as a marketer for Hamster Hub. I successfully recruited over 200 participants through TikTok, and the promotional video received more than **300,000 views** on the platform (TikTok: khaokong22).

What I've got?

- Confidence
- Leadership
- Teaching Skill
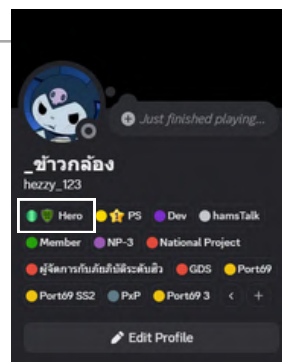
Hamster Hub Discord Profile showing the tutor role (Hero)
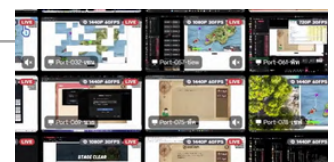
Teaching Atmosphere

Recap Port69 SS1

Recap Port69 SS2

English Skill

TOEIC

ETS® TOEIC®

LISTENING AND READING TEST
OFFICIAL INSTITUTIONAL SCORE REPORT

GH 0043619

LISTENING	CEFR Level	B1
330		

READING	CEFR Level	B1
340		

TOTAL SCORE 670
CEFR Level B1

Name NAPAT TOOPTHONG
Date of Birth MAY 7, 2008
ID Number 1 139600473649
Test Date AUGUST 21, 2025
Client THANYABURI SCHOOL

Report is valid for two years from the test administration date.

TOEIC® Services Thailand -- Certified Score Report -- Issued AUGUST 25, 2025

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IN1001-01TH

What I've got?

- Confidence
- English Communication
- Solving on-the-spot problems.

DEL MAX

Intern Receptionist at Del max Resort

I completed a **one-month internship** as a Receptionist at Delmax Resort in Pattaya. Since most guests were **international**, I used English every day. This experience allowed me to gain valuable knowledge in both hotel management and English language skills simultaneously.
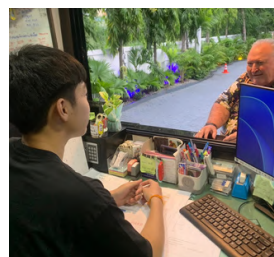
Guidance for Continuing Education

I was selected by my school to **advise** 6th graders on their secondary education. I shared my experience in the English Program, which helped me improve my English public speaking skills.

What I've got?

- Confidence
- Leadership
- English Pitching

BLS

Bewise Global Exchange 2025

I participated in a student exchange scholarship exam for a summer program at **Oxford** and was awarded a **55,000 Baht** scholarship from Bewise, as one of **30 recipients.**

ขอแสดงความยินดี !
นักเรียนสอบผ่านการคัดเลือก

ได้รับ ทุนการศึกษามูลค่า 55,000 บาท

โครงการสอบชิงทุนนักเรียนแลกเปลี่ยนภาษาและวัฒนธรรมระยะสั้น
@Oxford

	คะแนนสอบ				
คะแนนที่ได้	คะแนนเต็ม	คะแนนสูงสุด	คะแนนต่ำสุด	ค่าเฉลี่ย % (Mean)	จำนวนผู้เข้าสอบ
43.33	100	90.00	13.33	36.42	629

BEWISE Global Exchange

International Presentation

I participated in a 7-day innovation project competition in **China**, where I used English for all communication.

Certificates

Participant of "LET ME TIRE 4th"

Awarded by Computer Engineering, Kasetsart University

Outstanding Student Award 2024

Awarded by Ministry of Education

Met the criteria for the "SPU AI Prompt" competition and ranked 11th.

Awarded by AiAT

Participant of "LAODINSOR CAMP 19th"

Awarded by School of Engineering, Thammasat University

Won a Gold Medal, ranking 10th

Awarded by Office of Secondary Educational Service Area, Uthai Thani.

Participated in the ICNWP 2024 International Conference.

Awarded by Nation-Building institute

Participant of "SPU AI Prompt 2025"

Awarded by the School of Information Technology, Sripatum University

Participant of Design & Thinking Workshop

Awarded by Thai Samsung Electronics

Winner of Math Project Competition

Awarded by Thanyaburi School

Semi-Final Rounded "CEDT Innovation Summit 2025"

Awarded by Computer Engineering (CEDT) Chulalongkorn University

Won 2nd Runner-Up at the ANTxDPU Global Game Jam 2025.

Awarded by ANTXDPU, Durakit Bundit University

Participant of "IT CAMP 21st"

Awarded by the Faculty of Information Technology, King Mongkut's Institute of Technology Ladkrabang.