

# Dhirath (Kaka) Thanglerdsunpan

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## EDUCATION

**Columbia University, School of Engineering and Applied Science**

Expected May 2029

- *Bachelor of Science* in Electrical Engineering, Minor in Applied Physics
- *Relevant Coursework*: Accelerated Physics, Multivariable Calc, Lin Alg & ODEs, Intro to EE, Electronic Circuits, DSA, Probability
- *Activities*: Research Assistant @ WiMNet lab; Formula Racing (Electronics Engineering Team); Thai Students Association

**Ruamrudee International School (High School) Bangkok, Valedictorian, 4.21/4.00 GPA**

Jun 2025

- *SAT Scores*: Math 800/800 | ERBW 760/800
- *APs (All 5s)*: Physics (I, II, C), Calc-BC, Stats, CS A, Bio, Chem, Macro+Microecon, English Lit, World History, Human Geo
- *Activities*: National Honor Society VP, Student Council Facilities Chair, Varsity Rugby, Varsity Swimming, Jazz Band

## PROFESSIONAL EXPERIENCE

**Oliver Wyman, Winter Consulting Analyst**

Dec 2025 - Jan 2026

- Led a team of 5 analysts to develop a national strategy to future-proof Thailand's finance talent pipeline for the AI era.
- Analyzed AI-driven skill shifts across banking and capital markets; designed a phased 2025–2035 roadmap covering curriculum reform and industry–academia partnerships, benchmarking against SG, HK, & MY. Synthesized insights into client-ready materials & delivered strategic recommendations to the Ministry of Education, Thai Capital Market Development Fund, & Bank of Thailand.

**Family Pawnshop Chain, Third Generation**

2012 - Aug 2025

- Supported operations of a family pawnshop chain with 35+ branches across Thailand, operating as a micro-lending institution; oversaw daily financial transactions, asset valuation, and customer relationship management.
- Introduced customer-centric “humane metrics” to set fair, transparent rates, maximizing support for customers in need, increasing customer retention by 15%, expanding the customer base by 10%, while mitigating risk.
- Partnered with Ruamrudee Consulting Club to deliver data-analytics–driven consulting support to small business clients.

**Yale University, Yale Entrepreneurial Society High School Fellow (Pitch Finalist top 6 teams)**

Sep 2024 - Jan 2025

- Selected to develop AI startup concepts and MVPs for VC pitches Cofounded PoliTrust, a decentralized policy platform using blockchain & AI for transparency w/ int'l fellows & Yale mentors.

**ZTRUS, Summer AI Research Intern**

Jun 2023 - Aug 2023

- Researched, trained, and evaluated OCR, NLP, and deep learning models for automated document processing, reducing invoice and receipt handling labor by up to 30–50% for clients such as Siam Pivat, SCG, Murata, and ThaiBev.

## RESEARCH & AWARDS

**King Mongkut Institute of Technology Ladkrabang, National Research Scholar, First Author**

Apr 2022 - Jul 2025

- Spearheaded research in the development of the Rumbometer—a novel method for vehicle speed measurement.  $\pm 1$ km/h accuracy at 5% the cost of traditional radar systems, leveraging ground vibrations induced by transverse rumble strips. Pilot in 7 BKK streets.
- Published on [IEEE Xplore](https://ieeexplore.ieee.org) 50th IEEE Annual Conference of the Industrial Electronics Society (IECON 2024) and IFSA's 9th [SEIA](https://www.seia.or.th/)
- Bangkok Governor's Innovation Award, Best Young Inventor & Gold Medalist at the 9th Int'l Invention Innovation Comp in Canada

**Kasetsart University, National Research Scholar, First Author**

May 2024 - Jun 2025

- Developed a Prognostic Health & Usage Monitoring System for truck fleets, integrating AI algos: K-means clustering & fuzzy logic to evaluate driver behavior & predict vehicle component failures. Best Paper Runner-Up @ 14th TSME Int'l Conference on MechE.

**ASEAN Data Science Explorers, National Finalist (Top 10 out of 247)**

Aug 2023

- Leveraged SAP to analyze data from the ASEAN Foundation and UN; proposed a government-regulated P2P lending platform using predictive credit modeling to address financial exclusion and loan sharks.

**MIT iQuHACK Quantum Computing Hackathon, Top 5 Team out of 113 in Remote Microsoft Challenge**

Jan 2023

**Uber Global Hackathon, Team Captain, Regional Champion (Asia), Global Finalist (Top 30 out of 732 teams)**

Jul 2022

- Developed a Flutter application featuring an AI chatbot and an NLP Transformer model specifically trained on r/PTSD subreddit to detect signs of PTSD in textual content in 48 hours.

## LEADERSHIP & VOLUNTEER EXPERIENCE

**Safe Stripes Society, Founder and Director**

Aug 2023 - Aug 2025

- Founded the first youth-led road safety initiative in Southeast Asia, aimed at improving road safety awareness and practices.
- Developed & installed low-cost road safety solutions (eg. Rumbometer). Successfully campaigned for stricter speed limits in BKK.

**GoBabyGo Thailand, Country Director**

Aug 2021 - May 2025

- Led the Thai chapter of a global organization dedicated to empowering children with mobility impairments with modified ride-on toy cars, enabling over 80+ children to operate the vehicles and explore the world independently. Established in 7 schools across.

## TECHNICAL SKILLS & HOBBIES

*Technical Skills*: Python, C, Java, Matlab, SQL, Dart, Arduino - HTML, CSS, Flutter, NextJS, Figma, PCB Design, LTSpice, MSFT 365

*Hobbies*: Swimming, Rugby, Soccer, Hi-Fi Audio, Piano (Romantic Era), Trumpet, Pet ChowChow, Watch Collecting, Dining & Cooking