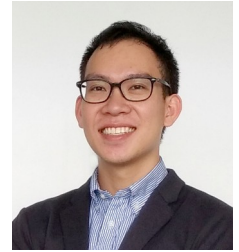


Tanut Treratanakulwong



Home Address 155/26, Changwattana Road, Thungsonghong, Laksi, Bangkok, 10210, Thailand
Contact Number (+66) 81 556 5268
E-mail tanat44@gmail.com
Date of Birth 23rd December 1988

SKILLS

Software Engineer, Robotics Engineer, Mechanical Design, Embedded Software Engineer

Programming (Current) Javascript (React, Node.JS), Python, C++, Database (SQL, NoSQL), Arduino
(Past Exp.) Matlab, Java, PHP, VBA, Flutter
Software Linux, Fusion 360, Solidworks, Blender, Inkscape (Illustrator)
Language Thai (Native), English (Fluent), Japanese (Intermediate, Level N2)

ACADEMIC RECORD

The University of Tokyo, Tokyo, Japan Oct 2013
Master of Engineering in Mechano-Informatics (Robotics), Under Japanese Government Research Scholarship
Graduate school of Information Science and Technology (High-distinction master dissertation)

The University of Pisa, Pisa, Italy Feb 2013
Research Visitor at the Research center "E. Piaggio".

Chulalongkorn University, Bangkok, Thailand Mar 2011
Bachelor of Computer Engineering, Faculty of Engineering
First-class honors. (GPAX=3.86, 3rd ranking of the Computer Engineering Department)

WORK EXPERIENCES

Lumio 3D, Bangkok, Thailand Apr 2020 to Now
Software Developer

- Develop machine vision application using Qt C++ and Halcon image processing library for defect inspections in factories.
- Develop crowd face detection and recognition on Linux-based edge computing devices. I have major contribution in face-embedding management in C++, front face detection algorithm in C++, python backend, Autobahn.IO communication, and React front-end web application.
- Integrate pre-trained ML model for automatic face landmark detection written in Python and 3D mesh algorithm in C++.
- Mechanical design of camera calibration jig, product assembly jig, tilting table, selling together with Lumio H3™ Face Scanner.

Freelance Programmer Nov 2019 to Mar 2020

- Web-application for managing x-ray centers. Key features are asynchronous read/write for large file upload/download (30GB of data added to the system every week), online diagnosis platform for radiologist, Line chatbot notification, and process flow redesign. I ran this whole project alone and completed within 2 month. I covered requirement collection, user-interface design, system design, coding, testing, deployment, and training. The system is currently using in over 30 CT/MRI centers all over in Thailand with over 300 daily active users. Development stack: React, Node.JS, MongoDB, Linux server.
- Front-end developer for web-based import-export solution using Flutter, and Google Firebase (Database, Storage, Cloud Function).

Nawarat Clinic, Bangkok, Thailand May 2019 to Now
Software Engineer and Operation Manager Jun 2014 to Sep 2015

- Develop in-house CRM/ERP system for dental clinic using React, Node.JS, MySQL. Major features are customer's treatment records, royalty program, booking system, queuing system, management dashboard/reports and salary calculator.
- Run the operation of dental clinic with 14 rooms, 24 dentists, 18 staffs, and over 3000 customers/month.
- Planning and overseeing the construction to expand from 9 to 14 treatment rooms within 6 months in 2015.

Mitsui & Co., Bangkok, Thailand
Deputy Manager Business Development, Infrastructure Project Division

Sep 2015 to May 2019

- Business development with focus on infrastructure projects in Thailand, Myanmar, Laos, and Cambodia.
- Project due diligence on power plant project (hydropower, gas/captive/cogeneration power plant), LNG terminal, fulfillment business. Develop project structure and financial model.
- Coordinate and maintain good relationships with major big corporations in Thailand – PTT, TCC, CKP, EGAT.

Portek International Pte Ltd, Singapore
Business Development Manager

Nov 2016 to Feb 2019

- Develop business in port sector engineering service sector. Main products are secondhand port equipment trading (QC, RTG, MHC), Automated Guided Vehicle (AGV), battery pack for mobile equipment, and etc.
- Seek for port operation concession opportunities in Asia market. Develop business plans and cash flow projection.
- Skills involved are proposal/contract preparation and review, project cash flow analysis, and subsidiary management.

Anthrobotics Inc., Tokyo, Japan
Mechanical Designer

Oct 2013 to Jun 2014

- Research and development of the consumer pet robot utilizing low-friction tendon-driven system and high force sensing capability. Major contributions are in the mechanical design of the robot with over 1000 parts.

SCG Paper Plc, Songkhla, Thailand
3-Month internship

Oct 2010 to Jan 2011

- Develop VBA Script for quality control process in corrugated paper box production line.

INTERESTS

Formula 1 Racing / Software Development / Mechanical Design / RC car & plane / Wood working

RESEARCH PAPER

Tanut Treratanakulwong, Hiroshi Kaminaga, Yoshihiko Nakamura, "**Low-Friction Tendon-Driven Robot Hand with Carpal Tunnel Mechanism in the Palm by Optimal 3D Allocation of Pulleys.**", In Proceedings of IEEE International Conference on Robotics and Automation, 2014.

Tanut Treratanakulwong, Hiroshi Kaminaga, Yoshihiko Nakamura, "**Monocoque Design of 3D-Printed Carpal Tunnel Mechanism for 11DOF Underactuated Robot Hand.**", In Proceedings of 31st Robotics Society of Japan, 2013. (This paper is written in Japanese)

Lertwiram, Sitthiya, Danupol Tanprayoon, Chonlatit Prateepmanovong, Tanut Treratanakulwong, Wachiraphan Charoenwet, and Pizzanu Kanongchaiyos. "**A design and implementation for ultrasound practice system for fetal echocardiography.**" In Proceedings of the 10th International Conference on Virtual Reality Continuum and Its Applications in Industry, ACM, 2011.