

# PAKWAN (KWAN) SUPPAIBOONSUK

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## RESEARCH INTERESTS & VISION

I envision a world where tools for driving physical, mental, or spiritual **well-being** are easily **accessible** to those who need it most.

I seek to infuse art and philosophy into technology to create tools that promote **self-awareness** in individuals, helping them to better **understand** themselves and those around them.



## EDUCATION

**BSc Technology, Liberal Arts & Sciences | University of Twente** *Enschede, NL*  
SEPTEMBER 2014 – JUNE 2017

Honors degree fully taught in English (8/10)

Thesis: Real-time inertial sensor-driven biofeedback on foot progression angle (8.5/10)

Focus track: Biomedical Engineering; Minor: Bio-Robotics

**High School | Grace International School** *Chiang Mai, TH*  
AUGUST 2010 – JUNE 2014

Relevant experiences: Followed course on Object-Oriented Programming (JavaScript) and was a member of the Robotics club (built remote-controlled submarine).



## RELEVANT WORK EXPERIENCE

**Software Engineer | Modderkolk Projects & Maintenance** *Wijchen, NL*  
MAY 2018 – PRESENT

Engineered and implemented an image data pipeline for scaling a machine learning system for a production process. Developed proof of concepts for object recognition system to sort incoming materials prior to assembly.

**Graduate Engineer Trainee | New Engineers** *Arnhem Area, NL*  
SEPTEMBER 2018 – AUGUST 2019

Conceptualized vision for a smart production line (for Modderkolk Projects & Maintenance) where machines and humans work together to enhance product quality and end-customer experience. Developed business case and innovation roadmap. Defined initial system at various levels (from process flows to technical system). Followed master classes in business development, design thinking, innovation and change management.

**Product Development Consultant | VRRehab Technologies** *Remote*  
MAY 2017 – JULY 2017

Analyzed capabilities of virtual reality and motion capture tools for use in creating an interactive VR game for children with motor and cognitive impairments (neurorehabilitation). Aided in writing business proposals and applications for start-up incubators.

AUGUST 2016

Assisted with ongoing projects at the Computational Intelligence Research Laboratory (CIRL); main focus was on building an Android application that controls a Bluetooth microphone that is inserted into a stethoscope (telehealth). Shadowed field work by visiting and talking to elderly people in local village to check on fall detection device.

**Developer | SciSports**

Enschede, NL

JULY 2015 – JUNE 2016

Part of the front-end development team responsible for debugging and implementing new functionalities for Insight online software tool for soccer player management.

**WORKSHOPS/TALKS GIVEN****Innovation – What, Why, and How? @ Modderkolk Projects & Maintenance**

NOVEMBER 2019 – FEBRUARY 2020 (EXPECTED)

A series of workshops given to middle management with the goal of equipping them with the tools to identify innovation opportunities and to grow an innovation culture within the company.

**Data Symposium – Unlocking the Value of Data @ New Engineers**

JUNE 2019

Part of panel, representing Modderkolk. I presented our data case to 9 different companies, covering where the company stands and would like to achieve with regards to Data Science. Along with members from two other companies, we discussed strategies for growing Data Science capabilities.

**TECHNICAL SKILLS****Software & Programming Languages**

Python (pandas, sklearn, Keras, TensorFlow) • JavaScript • HTML • CSS • C# • MATLAB • SQL • MongoDB (non-relational database) • LATEX • Processing • SolidWorks • Unity3D • Microsoft Office (Word, PowerPoint, Excel) • Adobe Photoshop and InDesign

**Expertise**

Data Analysis & Visualization • Signal Processing • Systems Modelling • Biosensors • Gait Analysis • Innovation Management • Data Strategy • Raspberry Pi • Web Development • REST APIs

**LANGUAGES**

- English (bilingual proficiency)
- Thai (native/bilingual proficiency)
- Dutch (professional working proficiency)
- Mandarin (elementary proficiency)

**OTHER ACTIVITIES****Current Commitments**

- Vice President Public Relations & Member of Den Bosch Toastmasters (public speaking group)
- Soccer player @ SV Orion (1<sup>st</sup> class Dutch amateur league)

**Hobbies & Interests**

Soccer • Jazz/Blues music • (Classical) Philosophy • Creative Coding