Kai Yi Pang

Mobile No: 8118 4639
Email Address: pang.kaiyi@u.nus.edu

EDUCATION

National University of Singapore   *Aug 2020 – Present*
- Bachelor of Electrical Engineering (Hons) with 2nd Major in Innovation and Design Programme (IDP)

Tampines Junior College   *Jan 2016 - Feb 2018*
A Level
- Major in Science, PCME (Physics, Chemistry, Math, Economics)

WORK EXPERIENCE

Keysight Technologies: Automation of Black Box Testing Project   *May 2022 – Jul 2022*
Software R&D Engineer
- Automated workflows of In-Circuit testing for their i3070 machines
- Programmed test automation scripts based on required test plans to ensure product meets internal quality requirements
- Concurrently managed 2nd Project on 'FPGA Design and Board Test' to replace an old Integrated Circuit (IC) while ensuring specifications of the new IC is suitable using an oscilloscope

Skilio Industry Immersion Programme: Bamboo Builders   *Jun 2020 – Jul 2020*
Video Editor
- Selected out of 10 candidates to collaborate closely with start-up founders
- Identified and liaised with over 100 ASEAN Social Enterprises (SEs) for social entrepreneurship related video interviews
- Recognised as highest response rate of SEs contacted by peers and mentor

PROJECTS

NUS EG3301R: Wave   *Jan 2022 – Present*
CEO/Software Developer
- Partnering with Cerebral Palsy Alliance Singapore (CPAS) to help children with cerebral palsy better communicate physically and online on social media platforms
- Applied the design thinking framework that helped improve the accuracy in identifying the communication problem faced by children with cerebral palsy
- Employed Unity software, AR Tech to implement Natural Language Processing (NLP) for AutoComplete sentences in their speeches

NUS EG2301: Wheel-Me-No-More   *Aug 2021 – Nov 2021*
Product Designer
- Invented and fabricated a modified 3D wheelchair to improve the safety of wheelchair users moving downslope
- Utilised the rack and pinion mechanism to shift the wheelchair's centre of gravity, reducing the likelihood of it tilting forward
- Recognised and awarded an A+ grade for this module

Laundry Telegram Bot   *May 2021 – Jun 2021*
Project Lead and Software Developer
- Initiated and developed a laundry Telegram bot utilising Python programming and hosted it on Heroku Serverless Cloud

- End-to-End Development included iterations of testing to optimisation, resulting in 24/7 live updates of laundry machines
- Reduced inefficiencies for 120 residents in NUS College of Alice and Peter Tan
- Collected positive feedback from 30 residents who highlighted an average save of 3-4 times climbing stairs, equating to 1 hour spent on doing laundry weekly

NUS EG2310: Autonomous Robot System   *Jan 2021 – May 2021*
Electrical Circuit Designer and Programmer
- Built a TurtleBot3, operating on ROS, that can autonomously navigate and map through a maze
- Independently identified, aimed and fired a ping pong ball projectile at a thermal target
- Designed electrical circuits and programmed coding firing mechanism on Linus OS

CO-CURRICULAR ACTIVITIES

Community Engagement: Guiding our Last Goodbyes (Morticians)   *Dec 2021 – Mar 2022*
Trail Leader
- Directed an experiential trail for a group of 25 students with The Life Celebrant to understand the journey of Morticians
- Prepared hands-on programs and activities to experience the work of morticians
- Mediated discussion questions between students and morticians on the topic of post-death

CAPT in Silence   *Oct 2020 - Apr 2021*
Mentor
- Planned hands-on activities for the deaf community in Beatty Secondary School
- Engaged the deaf community to better understand hearing community through sign language which mentors learned prior to the engagement

Pasir Ris Silver Circle   *Aug 2016 - Aug 2016*
VIA Coordinator
- Directed 15 CCA members in program execution, logistics management, resulting in a well-planned and enjoyable experience with 30 elderlies

AWARDS AND HONORS

Keysight Hackathon 2022   *May 2022 – Jul 2022*
Participant
- Completed a 48hrs Hackathon to improve Keysight's In-Circuit Testing (ICT) products
- Attained 1st place for 'Most Impactful Idea' and received a prize of $600 voucher

Singapore Amazing Flying Machine Competition (SAFMC), Singapore   *Jun 2015 – Dec 2015*
Participant
- Competed in a team of 3 to design a lightweight aircraft made of household materials
- Represented St. Andrew Secondary School to win 2nd Placing nationwide

CERIFICATION
- GICT Certified Internet of Things Professional   *Jul 2020*
- GICT Certified Machine Learning Specialist   *May 2020*
- Google Ads Display Certificate   *Apr 2020*
- Wiley Certified Data Analyst   *Mar 2020*