

Ricky Vian Kartolo

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Technical Skills

- Adept in C, Python and MATLAB; knowledgeable in C++, HTML and CSS
- Designing embedded system from prototyping a low altitude Nanosatellite
- Micro-controller (Cortex M7) programming using C and Assembly Language
- FPGA digital designs programming with Verilog
- Acquainted with PCB Design software: Autodesk Eagle
- Experienced in CAD software: Autodesk Fusion 360 and 123D Design

About Me

A highly motivated and passionate sophomore actively seeking for an internship in the field of technology, specializing in communications. Whilst the growing importance of software in the tech industry, I believe it is only through the marriage of software and hardware that brings about creative innovation. Hence, as an electrical engineer with an inquisitiveness in software development, I possess the insight necessary to bring new perspectives to the table.

Working Experience

- 2018 – Present **RF Hardware Engineer at TransferFi Pte Ltd.**
I will be working on wireless power transfer through the use of RF beamforming technology. My job scope is to design the architecture of the phased-array transceiver module.
- 2018 – Present **Undergraduate Student Researcher at Acoustic Research Laboratory**
Currently writing a conference paper on the spatial diversity of underwater acoustic channel. Researching on the effect of the change in depth of vertical array receiver on the correlation of the frequency responses.
- 2015 **Intern at Wearnes Automotive Pte Ltd.**
Worked with the different departments, especially customer relations management (CRM) and studied the workflow of an automotive retail industry

Education (National University of Singapore, Bachelor of Engineering, Electrical)

Double Major in Innovation and Design (Technopreneurship)

Graduating in AY 2020-2021 with a current Cumulative Average Point (CAP) of 4.26/5

Achievements

- Best Hack for NUS-IEEE Hackathon 2018 2018
- Academic Scholarship Awards 2013 – 2016
- First Prize in International Spaghetti Machine Competition 2014

Personal Projects

- ⊕ I have built a motion simulation device to simulate steps taken from a smartphone using Arduino Uno and a step motor. A simple Arduino code that rotate the motor at a specific frequency and is able to change to different speed accordingly. The chassis is designed using 3D modelling Autodesk Fusion.
- ⊕ I have prototyped an IoT-based automated table tennis partner robot using Raspberry Pi 3. With the Pi connected to the Telegram using their API, the robot is able to detect players, notify its telegram subscriber that there is a player and shoot ping pong balls at the same time.

Selected NUS Projects

- ⊕ Through my innovation and design course (EG1310), my team and I have produced a low-altitude nanosatellite. My job scope was to design the electrical architecture of the machine while designing and manufacture the PCB board.
- ⊕ Currently taking Radar Techniques and Theory (EG2312) where my team and I create a radar-based musical instrument. My job scope is to design the overall RF systems and integrate electrical components (op-amps, local oscillator, duplexer, motor, and antennas) into one architecture.

Notable Leadership Experiences & Extracurriculars

- Corporate Relation Director of NUANSA 2017 – present
NUANSA is a musical production of the scale of more than a thousand audience. My team and I have managed to gathered sponsorships worth of \$21,000 for the production.
- Head of Public Relation of Tembusu GreenT 2017 – present
GreenT is an environment sustainability interest group within Tembusu College, and I am responsible for liaising with external green organizations.
- Captain of Tembusu Table Tennis 2017 – present
- Head of Marketing of POPI 2017
POPI is a nationwide sports event held by the Indonesian community to bond Indonesian students from various level of education through sporting activities.
- Secretary of Special Project of SJII Senior Council 2015 – 2016
- President, co-Founder of SJII Table Tennis Club 2015 – 2016

Volunteering

- SIA App Challenge (Assistant Judging Panelist, AV System Operator) 2017
- Underprivilege Math Tutoring 2014 – 2015

Additional Information

- Fluent in English, Chinese, and Indonesian (All Working Proficiency)
- Known to have good communication and negotiation skills
- Possess good teamwork skills and time management