

ANASTASIA CLARISSA GUNAWAN

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TECHNICAL SKILLS

Software

- Python, C++, MATLAB
- Node.js, Django, Unity
- threeJS, websockets
- Github

Hardware

- Prototyping
- Arduino
- Dynamixel & Servo
- Hand Tools & Soldering

Design

- SOLIDWORKS
- Altium Designer
- 3D Printing



EDUCATION

Bachelor of Applied Science | University of British Columbia

SEP 2014 – PRESENT | INTEGRATED ENGINEERING | GPA: 3.8

Outstanding International Student Award 2014

Dean's Honor List 2015/2016, 2017/2018



WORK EXPERIENCE

Robotics R&D Intern | Kindred Systems Inc.

SEP 2016 – AUG 2017

- Implemented sensory communication between software and hardware as part of an artificial intelligence architecture using Python. The sensors include: Dynamixel motor, Arduino, IMU, skin sensor, camera, binaural microphones, and speaker. Implemented a MySQL database on Amazon Web Services to store sensory datasets from the robots.
- Implement feedback sensory actions based on the inputs given by the user. Developed test cases as quality control to achieve production ready code.
- Created a web application to interact with robots using Node.js framework.
- Implemented a video feed to the VR headset to let users pilot a robot using Unity.

Equity Research Intern | PT Batavia Prosperindo Asset Management

JUN – JUL 2015

- Produced evaluation reports on environment, social and governance for the public companies listed in the Indonesian Stock Exchange to rank companies by ethical standards.
- Visited public companies and surveyed market fundamentals with securities analysts to elaborate on company strategies, market outlook, effect of new government policies and potential investments in each economic sector to predict market movement and identify new trends.



TECHNICAL PROJECTS

Medispenser | [GITHUB REPO](#)

AUG 2017 – APR 2018

- Lead the designing of the algorithm and coding effort in this group project for an automated medication dispenser.
- Implement a Django based website to interface with the dispensing device using communication protocols such as websockets and redis servers.
- Design electrical system using Arduino to control motors, infrared sensors, buttons, LEDs, and a speaker.

3D Import/Export | [GITHUB REPO](#)

AUG 2016

- Visualized the trade relationship between countries as how dependent they are to each other using a globe, pathways and control panels.
- Drew, interpreted and parsed geographical data using d3 to create a world map wrapped around a 3D sphere using threeJS.
- Rendered threeJS drawn pathways which are displayed based on queries made by the control panels implemented using jQuery.

Lighting Automation Project | [Documentation](#)

JAN - APR 2016

- Created a light bulb adapter and a complementary app, which could control multiple light fixtures. In this group project, my position was project manager and web application designer.
- Supervised the team's progress and their action plan to keep the project on schedule.
- Designed a web application interface using HTML, CSS and jQuery to enable communication between user and the light bulb fixture.



ACTIVITIES

UBC Engineering Student Team | Supermileage

JUL 2018 – PRESENT | ELECTRICAL LEAD & SAFETY OFFICER

- Plan and architect the battery electric vehicle system. Sub-systems include: motor, motor controller, battery and its management system, communication protocol and accessories.
- Collaborate with industry expert to build a custom Lithium-ion battery to supply sufficient energy to the motor whilst being lightweight.
- Design the accessory system that is triggered via the communication protocol CANBUS.

SEP 2017 – JUN 2018 | ELECTRICAL DIVISION & DRIVER

- Design a low energy consumption electrical system for the fuel-efficient cars to draw minimal power from the batteries.
- Use Altium Designer to create the schematics of the low power PCB and the footprints for its various components.
- Design and construct the mounting device of the steering wheel to the steering shaft.
- Use SOLIDWORKS and 3D printers to design and build an easily accessible and liquid resistant electrical housing.