TODSATID TEERAKAPIBAL

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Education

University of California Berkeley (Berkeley, California)

Major: Electrical Engineering and Computer Science
Expected Graduation: Spring 2021
GPA: 3.914
Relevant Coursework: EE16A, Math 53, Math 54, CS61A, EE16B, CS61B, EECS 127

Ruamrudee International School (Bangkok, Thailand)

High School Diploma and Graduated with Honors
Graduation: Spring 2018
GPA: 3.96/4.00, Honor Roll Student (8 semesters of High School)
Relevant Coursework: AP Physics C, AP Chemistry, AP Calculus AB&BC, AP Statistics

Experience

Thailand National Science and Technology Development Agency

Research Assistant/Fall 2016- Spring 2017

- Help design and constructed a vortex plasma head used for melting metals of high melting points
- Researched and analyzed data during lab hours
- Wrote a research summary which is submitted to the Thai National Science and Technology Developmental Agency

Chulalongkorn University

Independent Researcher/Fall 2017- Spring 2018

- Fabricate and ordered parts from local distributers
- Constructed 3D Printer by Hand
- Interfaced with printer using G-code files
- Worked with Arduino Uno/Nano to control stepper motors

Ruamrudee International School

Math and Physics Tutor/Fall 2016- Spring 2018

- Plan lessons to teach underclassmen mathematics and physics
- Teach materials covered in class by the teacher
- Create study plans for the midterms and final exam

BitBroker Labs

Machine Learning and Software Development Intern / Summer 2019 – Present

- Exploit machine learning software such as spell.run to execute ML code
- Create convolutional neural network models for image classifying
- Work with Google Cloud Platform to deploy websites
- Setup and maintain backend database using postgresql
- Technologies used: Google cloud platform, React-native, JavaScript, NodeJS, ExpressJS, Gitlab, Github, CSS, HTML, PostgresSQL

University of California Berkeley

Research Assistant at VR Lab / Fall 2019

- Help build a system that collects scans of buildings for virtual reality applications
- Worked with Arduinos, breadboards, and Opamps
- Develop code to collect scans using C++

Extra-Curricular Activities

Student Council Senior Executive/Chair of Thailand International School Student Council Association (3 hours a week/ 35 week)/Fall 2017- Spring 2018

- Take care of high school student's wellbeing and raise concerns to the administrators.
- Organize high school/ interschool events throughout the year
- Work in collaboration with representatives from other schools in Thailand

Highschool Varsity Golf Team Captain (8 hours a week/ 50 weeks)/ Fall 2016 – Spring 2018

- Organize practice rounds and set up schedule
- Coordinate with coach to plan for transportation
- Lead the team during tournaments
- Consult with team members who needs assistant

Editor of Humans of RIS Page (2 hours a week/ 20 weeks)/ Fall 2017 – Spring 2018

- Overlook the process of finding news and material
- Edit articles written by members of the team
- Publish articles onto the Facebook page

Berkeley Hyperloop Team (15 hours a week/ 20 weeks) / Spring 2019 - Present

- Design and build communication system for hyperloop competition pod
- In charge of signals and controls
- Focus on communication protocol (specifically Ethernet)
- Design and build Battery Management System
- Interface in Linux environment using Python

Engineering Student Council Treasurer (3 hours a week/ 20 weeks) / Fall 2018 - Present

- Organize initial allocations and financial assistance for all engineering clubs at the University of California Berkeley
- Conduct treasurer trainings for treasurers in all engineering clubs
- Evaluate proposals for financial needs by engineering clubs weekly

Awards and Acknowledgements

High School Honor Roll

- Every year the school awards the top 10 students with the highest GPA with the honor roll

United Kingdom Mathematics Trust Merit

- This award is given to students who score amongst the top 5 percent in the UKMT test

Intel ISEF National Finalist

- Reached the final round of the national qualifier for the Intel ISEF competition
- Submitted a project of voice recognition

Youth Science Competition Finalist

- This award is given to the top 15 research projects submitted to Thailand National Science and Technology Development Agency

AP Scholar with Distinction

- Received this award from College board for scoring high on the AP exams

Technical Skills

Computer Science

- Knowledge in programming in Java, Python, Scheme, SQL(SQLITE/Postgres), Arduino, JavaScript, HTML (Expertise in Python and Java)
- Experienced with Data Structures/Algorithms and Object-Oriented Programming
- Knowledge in using Jupyter Notebook
- Experience with using Linux Environment (Ubuntu and Debian)
- Experience with Web-Framework (Django)
- Expertise in Google Cloud Platform Virtual Machines, Cloud SQL, App Engine
- Experience with Machine Learning on spell.run platform
- Knowledge in Machine Learning algorithms (k-means, PCA, etc)
- Experience with using IDE (Eclipse and IntelliJ)
- Experience with hosting Discourse forums and web-technologies (Rails, Reddis, Postgresql)
- Experience with setting up backend databases using PostgresSQL
- Experience working with NodeJS and ExpressJS
- Experience using React-Native for android app development
- Expertise in managing domains and DNS records
- Experience with using email providers (Mailjet, Sendgrid, and Mailgun)
- Expertise in creating, managing, and hosting WordPress site
- Expertise in using Git as well as Gitlab and Github
- Expertise using Asana and Slack

Electrical Engineering

- Knowledge in microcontrollers and breadboarding
- Experienced with Arduinos and Raspberry Pi
- Knowledge in transistors and digital/analog circuits
- Experienced with circuit design and analysis
- Knowledge in signal processing (Fourier Transforms, SVD/PCA, etc)
- Experienced with Oscilloscopes, DC/AC Power supplies, and wave function generators.

Others

- Multiple years of experience with Geogebra
- Expertise in using Logger Pro
- Proficient with Adobe Photoshop
- Expertise with Microsoft: Word, Excel and Powerpoint and Google's equivalent

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