TIMOTHY JOSHUA DY CHUA

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Work Experience_____

Anritsu PH - Junior FPGA Engineer   Technohub, Diliman
TECH STACK: Verilog, ModelSim, QuestaSim, Vivado   *Aug 2018 – Present*
• Designed modules in development of 400G Ethernet and USB 3.2 Protocol
• Worked in a team of three to implement projects
• Collaborated with teams from Japan in project development
• Participated in business trips to Japan to perform instrument testing of company devices
• Initially trained in Japan for three months to prepare for the demands of the development cycle

Computing Laboratory Student Assistant   EEEI, UP Diliman
TECH STACK: *Aug 2017 – May 2018*
• Set up and configured to ready computers for laboratory use
• Debugged hardware and software problems for the laboratory computers

Laboratory Class Student Assistant   EEEI, UP Diliman
TECH STACK: Trello   *Jan 2018 – May 2018*
• CoE 134 Software Engineering
• Assisted Professor Nestor Tiglao in handling of 20 students
• Prepared activities, reports and presentations

Engineering Intern   Sparklab Innovation Center
TECH STACK: Circuit Soldering, C, Circuit Design   *Jan 2018 – May 2018*
• Constructed a system of speakers that are motion activated
• Vocalisations: A soundscape in Greenbelt Park by Teresa Barrozo

Education_____

UP Diliman, CUM LAUDE   Diliman, Quezon City
B.S. Computer Engineering   *June 2013 – June 2018*
• Relevant Coursework: CS 180 Artificial Intelligence, EEE 11 Programming Fundamentals, CoE 134 Software Engineering, EEE 13 Programming Applications in Electrical and Electronics Engineering
• University Scholar 1st Semester of AY 2017-2018

Personal Development_____

Machine Learning, Stanford University   Coursera
• Obtained a grade of 94.90%
• Topics include Linear Regression, Support Vector Machines, Regularization, Neural Networks, Gradient Descent

Neural Networks and Deep Learning, Stanford University   Coursera
• Obtained a grade of 96.50%
• Topics include Vectorization, Numpy, Backpropagation, Deep Neural Networks

Improving Deep Neural Networks, Stanford University   Coursera
• Obtained a grade of 98.40%
• Topics include Dropout Regularization, Weight Initialization for Deep Networks, Mini-batch gradient Descent

Structuring Machine Learning Projects, Stanford University   Coursera
• Obtained a grade of 89.20%
• Topics include Train/Dev/Test Distributions of Data, Avoidable Biases, Transfer Learning

Convolutional Neural Networks, Stanford University   Coursera
• Obtained a grade of 96.20%
• Topics include Computer Vision, Pooling Layers, ResNets, Non-max Suppression, Neural Style Transfer

How Google Does Machine Learning, Google   Coursera
• Obtained a grade of 83.00%
• Topics include Datalab, BigQuery, Google Machine Learning APIs

Projects_____

Hardware Accelerated Vehicle Detection Using Computer Vision for a Dynamic Traffic System
TECH STACK: Python, C++, C#, TCP, Vivado HLS, Raspberry PI, Zynq 7000 FPGA
• Integrated Computer Vision and Vehicle Traffic Simulation using SuMO
• Implemented Computer Vision on Raspberry Pi using OpenCV
• Used SVM and Histogram of Oriented Gradients Feature Extraction
• Team Leader in a group of three

Affliations_____

Ubiquitous Computing Laboratory, UP EEEI   Diliman, Quezon City
• Conducted undergraduate thesis under the laboratory advisers Nestor Tiglao and Jethro Limjoco

IEEE Student Branch, UP Diliman   Diliman, Quezon City
• Attended workshops as an introduction to Object Oriented Programming and C++

Logistics Division, UP Circuit   Diliman, Quezon City
• In charge of securing venues for events
• Event preparation and handling

Grace Christian Church of the Philippines   Grace Village, Quezon City
• Regularly attends events and services
• Participates in local outreaches

Seminars_____

Singapore AI Summer School   NUS, Singapore
TECH STACK: Deep Learning, NLP, CV, Reinforcement Learning   *July 2019*
• Learned about state of the art techniques and current problems of deep learning for a week
• Participated in a workshop, "Ocean Protocol & Connected Life"
• https://medium.com/p/afcc08a96376/edit

Google I/O Extended Manila 2017   University of Santo Tomas, Manila
TECH STACK: Tensorflow, Google Cloud Platform, Polymer, Firebase   *July 2017*
• Learned about applications developed or being developed by Google
• Participated in a breakout session about Tensorflow

Technology Impact Summit 2017   De La Salle University, Manila
TECH STACK: Artificial Intelligence, Virtual Reality, IoT, Application Development   *April 2017*
• Listened to speakers such as Dado Banatao, Ed Samonte, and etc.
• Participated in a breakout session about Internet of Things

Extra Curriculars_____

Google Code Jam 2019 Qualifier Rank 16608
TECH STACK: Python, Algorithms
• Participated in an algorithm competition held annually by Google
• Reached the qualifier round using Python 3

GCCP DVBS Program Faculty Member   Grace Village, Quezon City
SOFT SKILLS: Public Speaking, Able to handle children   *May 2017 – May 2019*
• Managed and taught a class of 40 elementary students
• Collaborated with a group of 5 co-teachers

Logistics Head, UP Circuit "Backt-bakan" 2014A   UP Bliss, Diliman
SOFT SKILLS: Leadership, Scheduling, Event Planning   *Nov 2014*
• Led the UP Circuit Logistics Division apprentices in execution of the organization's annual sports event
• In charge of securing a venue, procuring sport supplies, and creating the event programme

GCCP Journey Executive Committee   Grace Village, Quezon City
SOFT SKILLS: Leadership, Scheduling, Planning
• Organized the booth for the annual Grace Christian Community Fair
• Handles a group of 35-40 attendees during Friday Fellowship nights
• Collaborated in a group of 10