Nathan Tengco de Vera

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Education

MS EE: COMMUNICATIONS AND COMPUTER NETWORKS – UNIVERSITY OF THE PHILIPPINES DILIMAN

· Jan 2019-On Going, ERDT Scholar
· Significant Classes Taken: CS259: Network Performance, Modeling and Monitoring, EE277: Computer Coding Theory, EE298: Advance Cellular Networks, EE274 & 374: Digital Signal Processing I & II, EE 217: Microwave Systems, EE289S: Satellite Communication

BS ECE – UNIVERSITY OF THE PHILIPPINES DILIMAN

· Wireless Communication Engineering Laboratory
· Internship: Telmarc Corporation – ISP Company

Experience

GRADUATE RESEARCH ASSISTANT | *PHL-MICROSAT STAMINA4SPACE* | JAN 2019-DEC 2020

· Research on a Unity C# Based Diwata 2 Attitude Control Simulation for Reinforcement Learning Optimization
  o Created a weight-based model simulation of Diwata 2 satellite under unity, for accurate force reactions of mass form and reaction wheel locations/mass - Accurate interactive reaction wheel attitude control of Diwata 2. - Reinforcement Learning for target attitude control using Soft Actor Critic (SAC) algorithm
· Design, fabrication and testing RF filters, controllers and amplifiers for ARU system and other embedded RF hardware projects
· Troubleshooting and management of ARSS ground receiving station. Repair work on UHF/VHF Antennas.
· RF embedded system programing and interfacing using C with I2C, SPI and UART protocols.
· Conducted training programs and showcase presentations for local and international institutions on satellite communications

STUDENT ASSISTANT | *VBTS PROJECT-PCARI* | JUNE 2017-DEC 2018

· Database management for 8 cellular BTS using Microsoft SQL. Created an automated extraction/visualization program using SQL, Bash and SPSS
· Test and evaluation using communication equipment such as SDRs, HF Power Amplifiers and Duplexers using Vector Network Analyzers and Power Meters.
· Created an automation program for sim card initialization into database using bash script and embedded C.

TECHNICAL ENGINEER - TEAM MANAGER | *ICROSS HOLDINGS* | MAY 2015-JUNE 2018

· Created a Website sample and oversaw the implantation of an HRIS for a government contract using Bootstrap, CSS, HTML and MySQL
· Setup and management of team handling sound and lights system for large scale areas of a hotel-resort
· Multiple CCTV/Security system contracts implemented.
· Team manager/Staff coordinator during HR trainings events.
· Spearheaded initial projects on government procurement for electronic laboratory supplies

Activities

APPLICATION HEAD | *WIRELESS COMMUNICATION ENGINEERING LABORATORY (WCEL) UP EEEI* | JUN 2017-DEC 2018

· Managed over 70 students on a yearlong application for the laboratory. Including training, lectures, technical reports and projects on wireless communications systems - Oversaw and mentored projects from other universities that requested RF equipment usage.

FINANCE HEAD | *MUAY-THAI UP* | JUN 2018-DEC 2020

· Managed the financials of an organization with over 50 active members (and over 50 applicants per semester) - Regular martial arts training (2x a week) and training of applicants. -Spearheaded the organization registration renewal process for AY2020

Skills

· Proficient in Python, C#, C, and Microsoft Office with Experience in Web development (SQL, Bootstrap) and Git
· Experience in RF communication systems computer networks and data processing
· Research Track on Deep Reinforcement Learning, Neural Networks and Data Processing.