

SON PHAM

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EDUCATION

- University of Waterloo - Canada** May 2023 - Aug 2024
M. Eng in Electrical and Computer Engineering – Specialize in ML & AI
- California State University, San Diego (SDSU) - United States** Dec 2019
B.S. in Electrical Engineering & Minor in Computer Science

EXPERIENCE

- Software Engineer @DEK Technologies (Full Time)** Dec 2022 – Feb 2023
· Involvement in developing Session Border Gateway (SBG) by setting up the environments for testing (VMWare, OpenStack, Kubernetes), config yaml files, working on k9s, Rancher.
· Have a basic understanding of Gerrit, SIP, Diameter, h248, IMS, SBG, Erlang.
- Wireless Test Engineer @SGS North America (Full Time)** Sep 2021 – Oct 2022
· Perform 5G NR (SA, NSA) test on Keysight, and Anritsu systems. Create a Python app to control ESPEC temp chamber based on tkinter, and pyvisa.
- Field Test Engineer @Samsung Electronics America (Contract)** Nov 2020 – July 2021
· Perform 4G/LTE, 5G (SA, NSA) Field Interoperability Testing (FIT) includes E911, 4G, 5G Data Throughput, Drive tests, Call tests, VoLTE Features, 5G Features, Handover.
· Analyze logs with QCAT, QXDM and Wireshark.
· Understanding basic aspects of SUPPL, LPP, IMS architectures, RRC, NAS layer.
· Develop batch, adb scripts, and Notepad++ macros to automate testing procedures.
- Test Engineer @SGS North America (Contract)** May 2020 – Sep 2020
· Performed protocol tests include RF, AT commands, Emergency, Handover, and Data Tput.
· Ran scripts on R&S CMW500, Anite, Anritsu. Developed a batch script to automate the calling process.
- Web Developer @ Bilingual Development Lab (SDSU)** Mar 2020 – Dec 2020
· Setting up WordPress site. Modified themes and developed a dashboard for pathologists to add/remove/enter surveys with PHP, MySQL, and Bootstrap.
· Used both SQL and Google Spreadsheet to store data. Demo: <https://vietslp.sdsu.edu>
- Research Assistant @ Smart Grid Lab (SDSU)** Mar 2019 - Dec 2019
· Designed a solar irradiance tracking device that could send signals over long distance (1-2 miles).
· Demo: <https://smartgrid.sdsu.edu/>, paper: https://bit.ly/sonpham_paper
- Research Assistant @ Biomechanics Lab (SDSU)** Jun 2019 - Dec 2019
· Developed a portable device to track muscle stiffness and measure EMG simultaneously using ultrasound.
· Reduced the noise source from the sensor. Optimized Matlab code and used Matlab to control Arduino.

PROJECTS

- Warehouse helper: Detect, count objects in real-time and export image file** 2023
· This Android app is built with YOLOv8, ncn libraries and custom object detection. [lamegaton/Warehouse-Helper](#)
- Senior project: Vehicle tracking device** 2018-2019
· Designed a device to track and display current traffic on a certain road using LoRa, Arduino, and sensors.

SKILLS & EXPERTISE

- Programming Languages** Shell script, Erlang (Basic) C/C++, Java (Intermediate)
Python (Intermediate) HTML/CSS, PHP, Query, JS (Intermediate+)
- Hardware** Raspberry Pi 3, Arduino, AVR, SDR (software-defined radio),
- Tools** 3D printer, QXDP, QPTS, adb