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# KHANIN UDOMCHOKSAKUL

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## Education

- Bachelors of Science in Computer and Electrical Engineering at Oregon State University
- Senior Standing in Pro School
- Cumulative GPA: 3.41

 : Khanin Udomchoksakul

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## Competencies

- Programming: Python, C, C++, Algorithm Analysis, Arduino, Verilog, Assembly, Matlab, Virtual Reality Development
- Hardware Expertise: Analog & Digital Circuit Analysis, PCB Design, MIPS Computer Architecture
- Relevant Courses: Computer Architecture, VLSI Design, Computer Vision, Deep Learning, Data Structures, Digital Logic Design, Signals and Systems

## EXPERIENCES AND RECOGNITIONS

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### Undergraduate Projects & Extracurricular Experiences

**PCB Reverse Engineering with Computer Vision ( 2019- Present )** : The web based software that utilizes Deep Learning Neural Network and Computer Vision algorithms for object recognition to classify circuit components, create Net-list from traces, and generate schematic design from the fetched PCB image. **Relevant Technology:** *Tensor Flow Deep Learning Framework; OpenCV Library; Web Application*

**Industrial Welding Robot in Virtual Reality (2019- Present):** The Collaborative project between OSU and Tenneco Automotive Thailand after internship that simulates Automated Welding Robots Teaching process in the Virtual Reality environment. **Relevant Technology:** *OTC Daihen Welding Robot, Unreal Engine 4, Oculus Rift. Solid works.*

**Peavy Hall in Virtual Reality (2017-2018):** The Virtual Reality Research Project that simulates Peavy Hall, the College of Forestry building, in The Virtual World, enabling users to interact and explore interior functionalities in VR experience. **Relevant Technology:** *VR Development, Unreal Engine 4, OpenGL, 3D Graphical Rendering.*

**PC Controlled Power Supply (2018):** designed and built a power supply that outputs 2 channels adjustable 2-14 DC Voltage and a 5 DC Voltage from USB 3.0. The system is operated by Touch Interface on TFT Screen that is programmed by Arduino Mega2560. **Relevant Technology:** *Analog Circuit Analysis, DC Voltage Regulation, Arduino Programming, PCB Design.*

### Work & Internship

**Internship:** 2 months internship at Tenneco Automotive Thailand as an Automation & IT intern responsible for integrating Camera Vision sensor (Keyence) into with 6 axes Automated Welding Robot Station for chassis verification and helping implement Production Scope Database System that digitally tracks Finished Good numbers in each production line from July to September in 2019.

**Teaching Assistantship:** Teaching Assistant in Digital Logic Design Lab (ECE 272) demonstrating System Verilog and Intel Quartus FPGA hardware to conduct Logic Design, SPI, and simulation via ModelSim to validate and simulate the digital design in 2018.

**Scholarships:** received Research and Experimental Learning & URSA Engage Fellowships for undergraduate research conduct in Human Interaction with Virtual Space with EECS Faculty in consecutive 2017 and 2018 years.

**Awards:** invited to be an OSU representative to present the Peavy Hall VR research project at AEC Hackathon event focusing on integration of Technology and Construction 2018 and 2019 in Silicon Valley and Seattle.