MICHAEL J. PARK

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EDUCATION

University of Texas at Austin *December 2016*
BS, Electrical and Computer Engineering
Senior Project: Batteryless and Wireless Data Acqusition Implant and System *(Advisor: Dr. Jonathan Valvano)*
GPA: 3.69/4.0

EXPERIENCES

Academic

University of Texas at Austin May 2016 - Present
Research Assistant (Advisor: Dr. Andreas Gerstlauer, Zhuoran Zhao) *Austin, TX*

- Wrote a literature review on deep learning applications in the embedded domain
- Evaluated open-source neural network libraries on embedded platforms to collect preliminary data
- Currently exploring system-level modeling and will contribute to the research until next fall

Keimyung University May 2013 - August 2013, May 2014 - August 2014
Research Assistant (Advisor: Dr. Jaehee Park, Dr. Jaecheon Lee) *Daegu, South Korea*

- Fabricated a thermocouple based distributed temperature sensor
- Designed and tested a bridge circuit based platinum temperature sensor
- Analyzed data of the temperature sensors

Industry

MKS Instruments January 2015 - November 2015
Embedded Software Co-op *Austin, TX*

- Created an automated test framework for testing EtherCAT, Modbus TCP, and RS-232 protocols
- Ported EtherCAT module into a bootloader to enable TFTP for loading application on an embedded device
- Added restoration and debugging features in a bootloader to support testing DDR memory on an embedded device
- Wrote and troubleshooted embedded software applications for different devices
- Modified an embedded web server API using JSON and RESTful architecture
- Tested latency, performance, and interoperability of embedded nodes on a CAN network
- Supported internal customers

PUBLICATION & PATENT

Journal

1) Jaehee Park, **Michael Jin Park**, and Dohyun Ahn, "Thermocouple-Based Distributed Temperature Sensor", *International Journal of Electrical and Electronics Engineering Research(IJEEER)*, vol.6, no.4, pp 69-74, 2016.

Patent

1) J. Park, M. Kim, J. Kim, **M. Park**, and Jae-Cheon Lee, Distribution-Type Thermocouple Sensor and Thermocouple-Based Distribution-Type Temperature Measurement System Using Same, PCT/KR2014/004318, 2014.

AWARD & ACHIEVEMENTS

1st Place – NXP Cup Challenge 2016 (Amateur Division)

- Wrote an embedded software for an autonomous RC car to participate in a race
- Designed and tested an image-based PID control algorithm used to navigate our RC car

1st Place – Honors Senior Design Competition Fall 2016 (UT ECE)

- Developed a batteryless data acquisition implant that communicates through an induction coil
- Built a system around the implant that allows users to control the implant through a web application
- Primarily contributed to developing the embedded software and system testing

Member – HKN (ECE Honor Society) Since Spring 2015

- Satisfied honors and pledge requirements

TECHNICAL SKILLS

General	Embedded Systems, Software, Communication and Signal Processing, Machine Learning
Languages	C/C++, Python, ASM(ARM, MIPS), VHDL/Verilog/SpecC/SystemC, Java, Bash, LaTeX
OS	Linux, Windows

RELEVANT COURSEWORK

Computer Architecture, Digital Systems Design Using HDL, Embedded Systems Design Lab,
Real-Time Digital Signal Processing Lab, Algorithms, Probability and Random Processes
Data Structures, C/C++ Programming, Electromagnetic Engineering

LANGUAGES

English, Korean	Native or Bilingual Proficiency