## **Nathan Lin**

### Global Solutions Engineering Intern at Hewlett Packard Enterprise

nlin24@gmail.com

## Summary

Interested in electrical engineering, software development, electronic manufacturing, and project management. Experienced with manufacturing for printed circuit assemblies and test development using LabVIEW.

#### Software skills:

- Labview, Matlab, OrCAD, AutoCAD, Mathematica, Microsoft Office Suite,
- Scripting in C, Python, HTML/CSS
- Operating Linux Ubuntu and Microsoft Window OS

#### Manufacturing Experience and Knowledge:

- Familiar with IPC 610, Acceptability of Electronic Assemblies
- Program development for manufacture defect analysis on flying probe and automated optical inspection (AOI)
- Stencil design for SMT process and pallet design for Wave soldering process
- Program development for ERSA selective soldering

# Experience

#### Global Solutions Engineering Intern at Hewlett Packard Enterprise

June 2016 - Present (5 months)

#### **R&D** Engineering Intern II at Thermo Fisher Scientific

January 2016 - May 2016 (5 months)

- Implemented in the Quality System the procedures and forms for component RoHS requirement
- Supported the RoHS certification project on four products by preparing the BOM, drawings, and the work instructions for the contractor

#### Test Engineer 2 at Ducommun Incorporated

September 2012 - November 2015 (3 years 3 months)

- Designed the manufacturing process for printed wiring circuit assemblies for down-hole applications
- Engaged in manufacturablity analysis and provided DFM recommendations to customer at NPI
- Pallet and stencil designs for SMT and WAVE processes
- Developed and maintained test programs for AOI machine inspection and flying probe in circuit test

#### Operations Engineer at INOVA Geophysical

#### December 2007 - September 2012 (4 years 10 months)

- Develop assembly instructions for box electronics
- Develop functional tests using Labview and National Instrument hardware
- Provide training and engineering support to contract manufacturers in U.S. and oversea in China, 30% travel

## Skills & Expertise

Labview

**AutoCAD** 

Visio

**MS Office tools** 

**MIPS Assembly Language** 

**SMT** 

**AOI** 

**ICT** 

**Testing** 

**Test Automation** 

**Manufacturing Engineering** 

**Lean Manufacturing** 

**IPC** 

Six Sigma

**Engineering** 

**Failure Analysis** 

**Electrical Troubleshooting** 

**Linux Desktop** 

**Test Development** 

**Troubleshooting** 

**Electronics** 

**Microsoft Office** 

**MIPS** 

**Systems Engineering** 

PC

**LabVIEW** 

**Electrical Engineering** 

**Project Management** 

**Design for Manufacturing** 

**Product Development** 

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## Education

#### **University of Houston**

Master of Computer and System Engineer (MCSE), Electrical and Electronics Engineering, 2015 - 2017 Activities and Societies: Society of Asian Scientists and Engineers - University of Houston

Cullen College of Engineering, University of Houston

Bachelor of Science, Electrical Engineering, 2001 - 2006

Activities and Societies: IEEE, University of Houston Branch.

**University of Houston** 

Bachelor of Science (B.S.), Electrical and Electronics Engineering, 2001 - 2006

Activities and Societies: IEEE UH Branch

#### Certifications

#### **Certified LabVIEW Associate Developer (CLAD)**

National Instrument License 100-315-13171 December 2015 to December 2017

### Languages

#### Chinese

#### **English**

## Organizations

#### **University of Houston**

Cache Performance Evaluation using SimpleScalar Simulator and SPEC2000 Benchmarks

December 2015 to Present

In this project, cache performance is being evaluated against sets of different L1 and L2 cache parameters. The goal is to study the impact for each of the cache parameters with regards to cache miss rate, number of instructions per cycle (IPC), and number of total load/store instructions. Simulation is carried out in Linux using the SimpleScalar virtual computer simulator and the SPEC2000 processor performance benchmarks suits. Each parameter is set independently with the remaining cache parameters stay unchanged to the default settings provided by the SimpleScalar package. The simulation results are then recorded and further analyzed to understand how each of the cache configurations impacts the cache performance.

#### Courses

## Master of Computer and System Engineer (MCSE), Electrical and Electronics Engineering

University of Houston Digital Signal Processing

ECE 6342

## **Projects**

#### **Speech-Music Classifier**

December 2015 to Present

Members: Nathan Lin, Asher Rahman, Amara Datta Sachidananda, Zhiheng Zuo

A speech-music classifier is built using MATLAB to classify given set of audio samples into 'speech' or 'music'. Three audio features namely, variance of Zero Crossing Rate (ZCR), Percentage of Low Energy Frames (LEF), and Linear Predictive Coding (LPC) are extracted from the training data and form the feature vector. Linear Support Vector Machine (SVM) is used as the bi-classifier, and it is then trained using the

feature vector. The method is verified on the given set of testing data whose feature vectors are extracted and feed into the bi-classifier. The experimental results show an acceptable classification accuracy of our classifier.

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# 1 person has recommended Nathan

"Nathan is very detailed-oriented and produced great results and for the company"

— Yi-lee Wigley, Electrical Inspector, Ducommun Inc., reported to Nathan at Ducommun Incorporated

Contact Nathan on LinkedIn