LEE, HAESUNG (STEPHEN)

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CLOUD ENGINEER, MACHINE LEARNING

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PROFILE

I am a Sydney based inventor and software developer of programs such as IoT and Algorithm for Machine Learning and Computational Statistics, like Python, TensorFlow, and PyTorch, including a Tutorial System for IoT Makers. My skills are shown below in a comprehensive skill chart. I have 15 years experience in the design, technical consulting service, and software development like AI system, Deep Counting System in Real Time, RNN Stock Price Prediction(By TensorFlow), SigFox IoT Sensor System, Face Recognition System, and Home Security Camera System.

SKILL SUMMARY 4 Languages

Web Programming

IoT HW & SW

- English - Korean Level 1

Data Science

- Japanese- Chinese

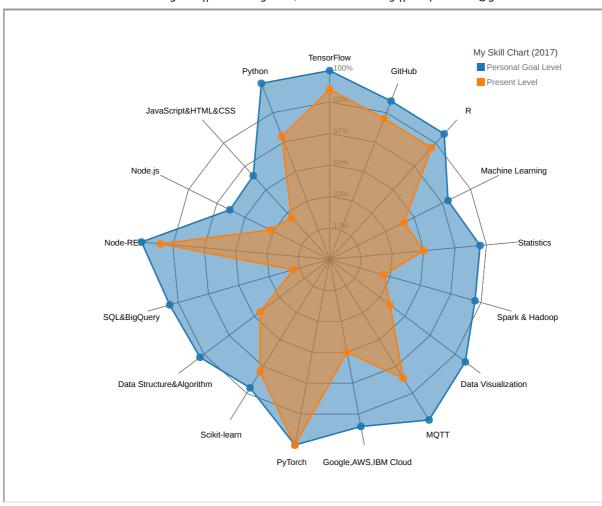
Level 3

Level 2

SKILL CHART

- Full-Stack
- Data Science
- My Skill Chart

HTML	TensorFlow	Machine Learning
CSS	Scikit-learn	Hadoop&Spark
JavaScript	Keras	Map-Reduce
Google&AWS&IBM Cloud	PyTorch	Matlab
Linux	SQL	BigQuery
Python	Wireless & MQTT	Data Visualization
Node.js	IBM Watson IoT	Computational Statistics



EDUCATION

- Online
- IT School
- English School
- Bachelor
- Bachelor - <u>Certificate Box</u>

Machine Learning by Stanford University on Coursera

July 5, 2016

- With Distinction
- License Number: W256TMG3R5H8

Statistical Learning by Stanford University on Stanford Online

July 20, 2016

- With Distinction
- License Number: fc74c29d139a43a091bcd0ea749d56e8

The Data Scientist's Toolbox by Johns Hopkins University

July 21, 2016

- With Distinction
- License Number: AXM8PNVQ3AZU

Sydney College of Business and IT, Sydney

2015-2017

- HTML, CSS, JavaScript, PHP, SQL,

Visual Basic.net, Visual C++, C#,

Software Testing & Deployment and Copyright Ethics.

- Developed PID Control For CPU Temperature of Raspberry Pi.
- Invented a MQTT-Gas-Valve For Home Safety.
- Developed Face Recognition app.
- Made an IoT Tech Blog of 159 countries' visitors.
- Awarded <u>Judges' Prize: Use of the IBM Watson or Watson IoT Services, or open source Node-RED visual programming tools.</u>

Stepone Language College, Sydney

2012-2014

- Improved my English Skills in Grammar, Writing, Speaking, English Conversation, and right accent.
- Had a working holiday experience to improve my English skill.

<u>Seoul National University of Technology</u>, South Korea <u>Bachelor</u> of Control and Instrumentation Engineering <u>(4.0 GPA)</u>

February 2007

Haesung Lee || Cloud Engineer, Machine Learning || deepcounter@gmail.com

- Learned C Programming, Intelligent Control(Fuzzy Control), Modern Control(Neural Network), Automatic Control(PID), Digital Signal Processing, Electronic & Electric design.
- Invented a patent of Oxygen generator for soil (Korea Pat: 10-0734438).
- Awarded Korea Ministry Award of Oxygen Generator System for soil.

EXPERIENCE

- Teacher
- Startup
- Developer
- Engineer
- Publications
- Open Source
- Meetup
- MOOC
- Leadership
- Volunteer
- <u>Portfolio Box</u>
- Certificate Box

RobotClass, Sydney

November 2016-Present

Teacher

- Teaching kids basic math, basic robotics, and Scratch programming.

AKASMA, South Korea

2010-2011

CEC

- Designed & developed a recycling can system to refund electronic money.
- Invented a patent of Oxygen generator for soil (Korea Pat: 10-0734438).
- The product's name was called 'Green Can-Money System'.
- Unfortunately it failed due to lack of marketing and finance.

CAS Electronics, South Korea

2007-2009

Junior Product Developer

- Developed firmware(C&C++) for products: Weighing Controller & Indicator.
- Improved failure rate of production from 30% to 2% by a factor of PB.

Honeywell Korea(JayCC Engineering)

2003-2007

FA Installation Engineer

- Installed & programmed FA Controllers such as PLC, SCADA, and DCS.

Software Activities

2013-Present

Publications

- PID Control For CPU Temperature of Raspberry Pi

- A smart gas valve for home safety by MQTT

- A smart JPEG camera for home security by using M2M Communication

Open Source Communities:

 $Node-RED\|Twilio\ Python \|IoT\ Python \|Python\ Sense\ Hat \|Data\ Science\ Python \|NoSQL\ Python \|Python\ Twitter Python \|Python\ Python\ Python \|Python\ Python\ Python \|Python\ Python\ Pyth$

MEETUPs:

 $\underline{OzBerry\ IoT} \underline{\|Sydney\ IoT\|} \underline{\|Sydney\ Python\|} \underline{\|Big\ Data\ Analytics}$

MOOCs:

- A Developer's Guide to the IoT by IBM||Statistical Learning(Stanford University)

- Machine Learning(Stanford University) The Data Scientist's Toolbox(Johns Hopkins University)

TEAM LEADERSHIP:

- Term 1: Developing the Leader Within You(Hillsong Leadership Evening College)
- Term 2: Developing the Leaders Around You(Hillsong Leadership Evening College)

Volunteer:

Australia Salvation Army IBM Open Source Helper Hillsong City Care

Recent Project:

- Implemented many CoreMLs for iOS Apps:
- 'Not A Banana' App (1)
- 'Not A Banana' App (2)
- Visual Detection App
- Written Letter Recognition App
- Apple Watch App (1)
- Apple Watch App (2)
- Developed Face Recognition System.
- Invented Realtime DeepCounter System (Deep Learning).
- Developed SigFox IoT Sensor System For IoT Data Analytics. | (Jupyter-notebook viewer)
- Developed RNN Stock Price Prediction(TensorFlow).||1-PNG||2-PNG||3-PNG.
- Developed TensorFlow-Powered Vision For Pi-based robot.
- Developed YOLO-Powered Robot Vision For Pi-based robot.
- $Implemented \ \underline{Differential} \ \underline{Equation} \ \underline{For} \ \underline{TensorFlow} \& \underline{Partial} \ \underline{Differential} \ \underline{Equation} \ \underline{For}$

TensorFlow.

- Developed Monitoring System For Server's CPU Temperature. | (Jupyter-notebook viewer)
- Developed ESP8266-01 with DHT11 For IoT Data Analytics. || (Jupyter-notebook viewer)
- Developed Pi Sense HAT with SQLite For IoT Data Analytics. || (Jupyter-notebook viewer)
- Developed Samsung ARTIK-710 For IoT Data Analytics. || (Jupyter-notebook viewer)
- All Portfolio