DICKSON NEOH

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DEEP LEARNING DATA SCIENTIST SUMMARY

- 10+ years of modeling deep learning-based time series and computer vision algorithms.
- · 10+ years of academic journal and conference publication such as Nature, Elsevier and IEEE Transactions.
- · 4+ years of helping companies deploy deep learning models into production.

WORK EXPERIENCE

Developer Advocate ZenML GmbH

July 2022 - December 2022

- · Developed social media content strategy for Twitter and LinkedIn.
- · Wrote blogs and gave podcasts/talks as a representative of ZenML.
- · Assisted in community communication and question handling on Slack.

Lecturer May 2016 - November 2022

Universiti Tenaga Nasional

- $\boldsymbol{\cdot}$ Taught microcontroller systems and digital logic design.
- Led research on road signage identification using deep convolutional networks and LSTM for multivariate time-series recognition from humanoid robots. Developed self-supervised Transformer models for Li-ion battery charge prediction.
- · Collaborated with industry partners to deploy real-time computer vision deep learning models on CPU.

Research Engineer Universiti Tenaga Nasional

May 2012 - May 2016

- · Designed custom motor driver PCBs with PID controllers.
- · Worked on PID controllers for PIC, Arduino, and Raspberry Pi microcontrollers.
- · Prototyped and deployed pipe inspection robot with image processing for defect detection.

EDUCATION

Ph.D. in Engineering Universiti Tenaga Nasional

March 2018 - June 2022

- · Investigated using deep learning models to estimate battery state-of-charge in hybrid electric vehicles.
- · Conducted comparative analysis of state-of-the-art deep learning methods for SOC estimation.
- Developed a novel algorithm for accurate SOC estimation from driving patterns using self-supervised Transformer model with low error metrics, offering a promising alternative to conventional models. See the published paper on <u>Nature</u>.

Masters of Electrical Engineering Universiti Tenaga Nasional

January 2012 - January 2015

- · Studied recognizing humanoid robot behavior using Long Short-Term Memory (LSTM) networks.
- · Demonstrated LSTM capability in classifying robotic maneuvers from joint angle data. See our published paper and demo video.

Bachelor of Electrical and Electronics Engineering (Hons.) Universiti Tenaga Nasional

June 2007 - June 2012

· Investigated building a torque-controlled DC motor driver using PWM and PID control algorithms.

INTERESTS

Reading. Read over 100 books in the past 4 years. Most are self-development and personal health books. My favorites include Deep Work, The Cancer Code, Super Human, Deep Nutrition, Ultralearning, Atomic Habits, Quiet, Start With Why, and The 7 Habits of Highly Effective People.

SKILLS

Tensorflow/Keras	PyTorch/Fastai	Arduino/Raspberry Pi/ESP32
Nvidia Jetson/Intel VPU/Coral TPU	OpenVINO/TensorRT/TFLite/ONNX	PySpark
Flutter	InfluxDB/Hive/Firebase/MySQL	Azure ML/AWS/Google Cloud

OPEN SOURCE

- $\cdot \ \, \text{Core Developer of IceV ision: An Agnostic Computer Vision Framework https://github.com/airctic/icev ision}$
- $\cdot \ \, \text{Code Contributor of TSAI: State of the art deep learning for time series and sequences https://github.com/timeseriesAI/tsai.}$
- \cdot Contributed to 19 open-source repositories on GitHub. See my GitHub $\underline{\text{profile}}.$