

# Dang Le Dang Khoa

(+84) 93 863 7642

(+65) 8698 0067

[dangledangkhoa@gmail.com](mailto:dangledangkhoa@gmail.com)

[github.com/dangkhoodl](https://github.com/dangkhoodl)

[linkedin.com/in/dangledangkhoa](https://linkedin.com/in/dangledangkhoa)

## WORK EXPERIENCE (SELECTED)

Master of Engineering Candidate

Satellite Research Centre

August 2016 - August 2018

- Implemented a design of Star Tracking Algorithms onto a Programmable System-on-a-chip system.
- Optimized the pattern recognition algorithm runtime by implementing the connected component labeling algorithm on parallel processors. Runtime is improved 64% on average compared to traditional processor approach.
- Optimized and designed the pattern searching algorithm by applying k-ary tree data structure. Time complexity and runtime improved 31%, but space complexity and memory increased 22%.

Languages/Technologies: C/C++, Python, Bash

Source code: [git.io/vpucY](https://git.io/vpucY)

Publication: <https://doi.org/10.32657/10220/48371>

## PROJECTS (SELECTED)

### Stock Price Predictor

- Predicted Stock Price data by Linear Regression and ARIMA modeling approaches.
- Optimized Model's accuracy by 20% by performing feature engineerings and hyper-parameters optimizations.
- Evaluated and Backtested models based on Live Stock Price Simulator on MetaTrader4.

Financial Knowledge:

COURSERA - [INTRODUCTION TO FINANCIAL MARKETS](#)

COURSERA - [PORTFOLIO AND RISK MANAGEMENT](#)

Languages/Technologies: Python, pandas, numpy, matplotlib, sklearn

Source code: [git.io/vpuCA](https://git.io/vpuCA)

### Dota 2 Hero Recommendation

- Recommended game characters based on historical user data collected by Open Dota API.

Languages/Technologies: Python, flask, pandas, numpy

Source code: [git.io/fhV1q](https://git.io/fhV1q)

### Neighborhood Map APIs

- Built a neighborhood map based on Google Map, Wikipedia, Foursquare APIs.
- Deployed and Configured Amazon Linux servers.

Languages/Technologies: Javascript, Flask, Ajax, jQuery, Knockout

Source code: [git.io/fhVMf](https://git.io/fhVMf)

## EDUCATION

Master of Engineering

Nanyang Technological University

August 2015 - August 2018

- School of Electrical and Electronics Engineering - Research.
- THESIS TITLE: Implementation of An Autonomous Star Recognition Algorithm using Hardware-Software Co-Processing Approach.

Bachelor of Engineering

Vietnam National University HCMC

August 2010 - April 2015

- Ho Chi Minh City University of Technology - Electrical and Electronics Engineering - Second Upper Honour.
- Major in Automation and Control engineering, minor in Robotics and Embedded System Design.
- THESIS TITLE: Applying of Fuzzy Logic Algorithm on Legged Locomotion Robot.

## CERTIFICATES AND RELATED COURSEWORKS

- COURSERA - [DATA STRUCTURES AND ALGORITHMS SPECIALIZATION](#)
- COURSERA - [MACHINE LEARNING SPECIALIZATION](#)
- UDACITY - [MACHINE LEARNING ENGINEER NANODEGREE](#)
- COURSERA - [MATHEMATICS FOR MACHINE LEARNING](#)
- COURSERA - [INTRODUCTION TO DEEP LEARNING](#)
- COURSERA - [BIG DATA ESSENTIALS: HDFS, MAPREDUCE, AND SPARK RDD](#)
- MIT-6.041-PROBABILISTIC SYSTEMS ANALYSIS AND APPLIED PROBABILITY
- UC BERKELEY - CS162 - OPERATING SYSTEMS AND SYSTEMS PROGRAMMING
- UIUC - CS425 - DISTRIBUTED SYSTEMS
- EY - [THE ART OF PUBLIC SPEAKING](#)

## COMPETITION ACHIEVEMENTS

- GOOGLE CODE JAM 2018 - ROUND 2 QUALIFIER - TOP 10% CANDIDATES
- THE ART OF PUBLIC SPEAKING - BEST PERFORMER