

## WORK EXPERIENCE (SELECTED)

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Master of Engineering Candidate	Satellite Research Centre	August 2016 - August 2018
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- 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)

## PROJECTS (SELECTED)

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### 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)

### Stock Price Predictor

- Predicted Time-series data by Linear Regression and ARIMA modeling approaches.
- Optimized Model's accuracy by 20% by performing feature engineerings and hyper-parameters optimizations.
- Evaluated and Benchmarked models based on Root Mean Squared Error Metrics.

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

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

### 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

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Master of Engineering	Nanyang Technological University	August 2015 - August 2018
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- School of Electrical and Electronics Engineering - Research.
- THESIS TITLE: Implementation of An Autonomous Star Recognition Algorithm using Hardware-Software Co-Processing Approach.

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Bachelor of Engineering	Vietnam National University HCMC	August 2010 - April 2015
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- 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

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- COURSERA - [DATA STRUCTURES AND ALGORITHMS SPECIALIZATION](#).
  - COURSERA - [MACHINE LEARNING SPECIALIZATION](#).
  - COURSERA - [BIG DATA ESSENTIALS: HDFS, MAPREDUCE, AND SPARK RDD](#).
  - COURSERA - [INTRODUCTION TO DEEP LEARNING](#).
  - UDACITY - [MACHINE LEARNING ENGINEER NANODEGREE](#).
  - UDACITY - [FULL STACK WEB DEVELOPER NANODEGREE](#).
  - MIT-6.041-PROBABILISTIC SYSTEMS ANALYSIS AND APPLIED PROBABILITY
  - UC BERKELEY - CS162 - OPERATING SYSTEMS AND SYSTEMS PROGRAMMING
  - UIUC - CS425 - DISTRIBUTED SYSTEMS

## COMPETITION ACHIEVEMENTS

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- GOOGLE CODE JAM 2018 - ROUND 2 QUALIFIER - TOP 10% CANDIDATES