# SAROT BUSALA

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## **EDUCATION**

# Chulalongkorn University, Bangkok

June 2015 - Present

Candidate for Bachelor of Engineering in Computer Engineering (expected June 2019)

## **ELECTIVE COURSEWORK:**

Artificial Intelligence, Neural Networks, Robotics, Automatic Speech Recognition, Wireless Computer Network, Computer Graphics, Realtime Physics Simulation

#### ACHIEVEMENTS

17th place (from more than 2,000 teams worldwide), IEEEXtreme 11.0	2017 October
25th place (from more than 2,000 teams worldwide), IEEEXtreme 10.0	2016 October
11th place, ACM-ICPC Asia Yangon Regional Contest	2017 December
14th place (2nd of Thailand), ACM-ICPC Asia Bangkok Regional Contest	2016 September
27th place, ACM-ICPC Asia Phuket Regional Contest	2015 September
Silver Medalist, 10th Thailand Olympiad in Informatics	$2\overline{0}14~\mathrm{May}$

#### **PUBLICATIONS**

• Busala, S., & Sirivichayakul, T., & Iida, H., & Khalid, M., & Yusof, K. (2018). Single Conspiracy Number analysis in Checkers. 11th International Conference on Agents and Artificial Intelligence (ICAART). (2019). Presented on 19-21 Feb. 2019 (Nominated Best Poster)

# **EXPERIENCE**

Undergraduate Senior Project, Surface Normal Estimation

2018 August - Present

- Estimated surface normal of an object from 2D images by deep learning. (Working with Lumio3D)
- Implemented, experimented the project by Tensorflow, Keras and PyTorch.

Research Student, Japan Advanced Institute of Science and Technology 2018 May - 2018 July

• Researched, implemented alpha-beta pruning, proof-number search, and conspiracy number.

Part-time Data Engineer, Donuts Bangkok Co., Ltd.

2018 January - 2018 May

• Implemented content-based recommender system for website contents (sistacafe.com)

CU Game Laboratory (Individual Study),

2017 August - 2017 December

- Improved RTS game AI by Dynamic scripting (Reinforcement learning technique).
- Implemented genetic algorithm in C++, both incremental and generational model.
- Analyzed results, used consecutive win rates to assess performance and designed states appropriated for dynamic scripting, allowed learning processes to reach boundaries faster.

Founder of Thailand competitive programming platform Codecube.in.th 2015 June - Present

• Organised 90% of competitive programming contests on the site, set problems, generated test cases, cross-checked solultions, created and supervised editorials, supervised problem setters.

## **EXTRACURRICULAR ACTIVITIES**

Computer Olympiad Tutor, Triam Udom Suksa School Computer Club

2013 - 2018

Prepared lectures on computer olympiad topics including splay trees, persistent segment tree, etc.

Computer Engineering Chulalongkorn University Hello CP World Day, 2016 August Leader of organising team who introduce freshmen to Computer Engineering department including details about computer engineering program, class, culture, club.

Leadership Camp of Triam Udom Suksa School

2012

## TECHNICAL SKILLS

Technical Skills C++, Python, Java, Haskell, SQL, MongoDB

Interests Artificial Intelligence, Evolutionary Algorithm, Computer Vision

, Computer Graphics, Realtime Physics Rendering

Languages Thai (Native), English (Advanced, TOEFL iBT 89), Japanese (JLPT N4)