

# Duc A. Hoang

## *Curriculum Vitae*

The current CV was updated on January 20, 2020.

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### Personal Information

Full name (Vietnamese) Hoàng Anh Đức.  
Name (in publications) Duc A. Hoang.  
Gender Male.  
Nationality Vietnamese.

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### Current Position

As of April 01, 2019, I am a **Postdoctoral Researcher** at School of Computer Science and Systems Engineering, Kyushu Institute of Technology (Fukuoka, Japan) under the direction of Toshiki SAITOH.

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### Contact Information

Address Room W609, Building 8 (Departmental Research Building),  
School of Computer Science and Systems Engineering,  
Kyushu Institute of Technology,  
680-4 Kawazu, Iizuka, Fukuoka, 820-8502 Japan.

Email (work) [hoanganhduc@ces.kyutech.ac.jp](mailto:hoanganhduc@ces.kyutech.ac.jp)  
Email (personal) [anhduc.hoang1990@gmail.com](mailto:anhduc.hoang1990@gmail.com)  
Personal Webpage <https://hoanganhduc.github.io/>  
ORCID 0000-0002-8635-8462

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### Education

- Apr. 2015 – Jun. 2018 **PhD Degree in Information Science**
- **Institution:** Japan Advanced Institute of Science and Technology (Ishikawa, Japan).
  - **Supervisor:** Ryuhei UEHARA.
  - **Thesis Title:** Independent Set Reconfiguration and Related Problems for Some Restricted Graphs.
- Apr. 2013 – Mar. 2015 **Master Degree in Information Science**
- **Institution:** Japan Advanced Institute of Science and Technology (Ishikawa, Japan).
  - **Supervisor:** Ryuhei UEHARA.
  - **Thesis Title:** The Independent Set Reconfiguration Problem on Some Restricted Graphs.
- Sep. 2008 – Mar. 2013 **Bachelor Degree in Mathematics**
- **Institution:** VNU University of Science (Hanoi, Vietnam).
  - **Thesis Advisor:** Thi Ha Duong PHAN.
  - **Thesis Title:** The Matrix-Tree Theorem and Some Related Problems.

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### Languages

Vietnamese Native.  
English Professional working proficiency.

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## Research Interests

- Graph Algorithms.
- Combinatorial Reconfiguration.

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## Employment

- Apr. 01, 2019 – present **Postdoctoral Researcher** at Kyutech Algorithms Group, Department of Systems Design and Informatics, School of Computer Science and Systems Engineering, Kyushu Institute of Technology, Fukuoka, Japan. Supervisor: Toshiki SAITOH.
- Sep. 05, 2018 – Dec. 31, 2018 **Lecturer** at Department of Informatics, Faculty of Mathematics, Mechanics and Informatics, VNU University of Science, Hanoi, Vietnam.

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## Research Visits

- Dec. 23, 2019 – Dec. 25, 2019 Faculty of Advanced Science and Technology, Kumamoto University, Kumamoto, Japan. Host: Yota OTACHI.
- Apr. 01, 2016 – Jul. 08, 2016 Algorithm Theory Lab, Graduate School of Information Sciences, Tohoku University, Sendai, Japan. Host: Xiao ZHOU and Takehiro ITO.

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## Professional Activities

- (Sub-)Reviewer **Journal**
- Theoretical Computer Science (2018 – 2019)
  - Discrete Applied Mathematics (2018)
  - IEICE TRANSACTIONS on Fundamentals of Electronics, Communications and Computer Sciences (2017, 2019)
- Conference**
- MFCS 2019
  - COCOON 2018

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## Teaching Experiences

A list of courses I have participated in as a **Lecturer** (in Vietnamese, **Giảng viên**) or **Teaching Assistant** (in Vietnamese, **Trợ giảng**). The courses in English (Vietnamese) are described in English (Vietnamese).

- Sep. 10, 2018 - Dec. 13, 2018 **Giảng viên** – VNU-HUS MAT3302: Toán rời rạc
- Sep. 06, 2018 – Dec. 13, 2018 **Giảng viên** – VNU-HUS MAT3302 2TNT: Toán rời rạc
- Oct. 11, 2017 – Nov. 30, 2017 **Teaching Assistant** – JAIST I216: Computational Complexity and Discrete Mathematics.
- Apr. 12, 2017 – Jun. 02, 2017 **Teaching Assistant** – JAIST I216: Computational Complexity and Discrete Mathematics.
- Oct. 12, 2016 – Dec. 01, 2016 **Teaching Assistant** – JAIST I216: Computational Complexity and Discrete Mathematics.
- Apr. 08, 2015 – Jun. 05, 2015 **Teaching Assistant** – JAIST I216: Computational Complexity and Discrete Mathematics.

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## Research Grants

- Aug. 30, 2019 – Mar. 31, 2021 **JSPS KAKENHI Grant-in-Aid for Research Activity start-up**
- **Grant Number:** 19K24349.
  - **Project Title:** A study on reconfiguration problems under Token Sliding and their applications.
  - **Role:** Principal Investigator.

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## Awards

Jun. 22, 2018 JAIST Outstanding Performance Award for doctoral students.

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## Co-authors (in alphabetical order)

Erik D. Demaine, Martin L. Demaine, Eli Fox-Epstein, Takehiro Ito, Amanj Khorramian, Hirotaka Ono, Yota Otachi, Akira Suzuki, Ryuhei Uehara, Tsuyoshi Yagita, Takeshi Yamada.

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## Publications

A list of my publications can also be found at DBLP and Google Scholar. Some of them are available as preprint manuscripts at arXiv.

### Journal

- [1] Erik D. Demaine, Martin L. Demaine, Eli Fox-Epstein, Duc A. Hoang, Takehiro Ito, Hirotaka Ono, Yota Otachi, Ryuhei Uehara, and Takeshi Yamada. “Linear-time algorithm for sliding tokens on trees.” In: *Theoretical Computer Science* 600 (2015), pp. 132–142. DOI: 10.1016/j.tcs.2015.07.037.

### Refereed International Conference

- [6] Duc A. Hoang, Akira Suzuki, and Tsuyoshi Yagita. “Reconfiguring  $k$ -path vertex covers.” In: *Proceedings of WALCOM 2020*. Ed. by M. Sohel Rahman, Kunihiko Sadakane, and Wing-Kin Sung. Vol. 12049. LNCS. Springer, 2020. DOI: 10.1007/978-3-030-39881-1\_12.
- [5] Duc A. Hoang, Amanj Khorramian, and Ryuhei Uehara. “Shortest reconfiguration sequence for sliding tokens on spiders.” In: *Proceedings of CIAC 2019*. Ed. by Pinar Heggernes. Vol. 11485. LNCS. Springer, 2019, pp. 262–273. DOI: 10.1007/978-3-030-17402-6\_22.
- [4] Duc A. Hoang, Eli Fox-Epstein, and Ryuhei Uehara. “Sliding tokens on block graphs.” In: *Proceedings of WALCOM 2017*. Ed. by Sheung-Hung Poon, Md. Saidur Rahman, and Hsu-Chun Yen. Vol. 10167. LNCS. Springer, 2017, pp. 460–471. DOI: 10.1007/978-3-319-53925-6\_36.
- [3] Duc A. Hoang and Ryuhei Uehara. “Sliding tokens on a cactus.” In: *Proceedings of ISAAC 2016*. Ed. by Seok-Hee Hong. Vol. 64. LIPIcs. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, 2016, 37:1–37:26. DOI: 10.4230/LIPIcs.ISAAC.2016.37.
- [2] Eli Fox-Epstein, Duc A. Hoang, Yota Otachi, and Ryuhei Uehara. “Sliding token on bipartite permutation graphs.” In: *Proceedings of ISAAC 2015*. Ed. by Khaled Elbassioni and Kazuhisa Makino. Vol. 9472. LNCS. Springer, 2015, pp. 237–247. DOI: 10.1007/978-3-662-48971-0\_21.
- [1] Erik D. Demaine, Martin L. Demaine, Eli Fox-Epstein, Duc A. Hoang, Takehiro Ito, Hirotaka Ono, Yota Otachi, Ryuhei Uehara, and Takeshi Yamada. “Polynomial-time algorithm for sliding tokens on trees.” In: *Proceedings of ISAAC 2014*. Ed. by Hee-Kap Ahn and Chan-Su Shin. Vol. 8889. LNCS. Springer, 2014, pp. 389–400. DOI: 10.1007/978-3-319-13075-0\_31.

### PhD Thesis

- [1] Duc A. Hoang. “Independent set reconfiguration and related problems for some restricted graphs.” PhD thesis. Japan Advanced Institute of Science and Technology, June 2018. URL: <http://hdl.handle.net/10119/15431>.