

Luc Van Nguyen

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📷 [shutterstock.com/g/LucNguyen](https://www.shutterstock.com/g/LucNguyen)

🌐 superprof.se/ir/12944889-2a5b52

Education

- 2017 – 2023 📖 **BSc. Computer Science** Global ICT Program, School of Information and Communication Technology, Hanoi University of Science and Technology: hust.edu.vn/en/
Average CPA: 3.26/4.0 (8.15/10)
Thesis title: *Enumerative Coding Techniques for Constrained Systems*.
- Autumn 2020 📖 **BSc. Computer Science** Uppsala University: uu.se/en
Erasmus-Mundus exchange student
- 2019 📖 **Mini-course: Essential Mathematics and Computing for Data Science**
Vietnam Institute for Advanced Study in Mathematics: viasm.edu.vn/en/

Research Experiences

- 📖 *Goulden-Jackson inversion theorem* on locally-constrained de Bruijn code enumeration: in preparation for publication. Project in C++: github.com/nguyenluc99/GJ_LC_deBruijnCode
- 📖 *Dyck path: $(1, k)$* —Dyck Path enumeration with bounded height and variants.
- 📖 Causal discover and inference.
- 📖 Other combinatorial structures: Catalan number, Gray code, Goulden-Jackson cluster generating function, ...





Conference presentations

- 📖 **Goulden-Jackson cluster generating function method for locally-constrained de Bruijn encoder**, 10th Vietnam Mathematical Congress, *Committee of Discrete mathematics and Mathematical foundations of Computer Science*, speaker. August 2023. Beamer: bit.ly/4oXJfcV.





Teaching and Advising

- Teaching assistant 📖 **Hanoi University of Science and Technology**: Primary teaching assistant of two classes during office hours and lab sections. Deliver lectures, grade, and weekly feedback during the Fall semester 2021.
- **Introduction to Computer Science**: 30 hours, 50 enrollments.
 - **C advanced: Programming techniques**: 60 hours, 80 enrollments.
- Online tutor 📖 Personal tutor for Swedish students on Mathematics and Programming (C, Python): superprof.se/ir/12944889-2a5b52
- Private tutor 📖 Mathematics tutoring for a Swedish high school student for 1 year.
C programming tutoring for 2 high school students since November 2023.



Employment History

- Apr 2023 - Present  **C++ Software Engineer**
Viettel High Tech: viettelhightech.vn/en
- Develop a simulation platform used in military. Synchronize packets using library OpenRTI (github.com/onox/OpenRTI), HLA (*High-level architecture*) and CIGI (*Common Image Generator Interface*) while ensuring *concurrent usage* of many clients in a same system.
 - Manage resource to distribute computation tasks into compute engine in Computer Generated Forces (CGF) system.
 - Technologies: Qt5, C++ STLs, OpenSceneGraph, Dynamic programming
- Apr 2022 - Mar 2023  **C++ Software Engineer**
Toshiba Software Development Vietnam: toshiba-tsdev.com
- Design and develop data compression transfer feature to migrate data from local storage to the cloud storages: *Google Cloud Platform, Amazon S3, Microsoft Azure*
 - Maintain and develop *database Foreign Data Wrappers* while preventing *race condition* in database access among threads and users.
 - Main project: github.com/pgspider/pgspider
 - Technologies: Linux, PostgreSQL, Makefile, bash, gdb, socket, lz4, memory & thread management, unit testing
- Mar 2021 - Sep 2021  **Machine Learning Engineer (Python)**
Eastgate Software JSC: eastgate-software.com
- Background removal using MODNet, Mask RCNN, ...
 - OCR with Google API, NLP with nltk, ...
 - Technologies: Jupyter Notebook, pip, TensorFlow, Keras, PyTorch, ...
- Sep 2019 - Feb 2020  **Machine Learning Engineer (Python)**
FTECH AI: ftech.ai/en
- Fundamental theoretical concepts in Recommendation Systems: Gradient descent, Collaborative filtering




Skills

- Languages  Vietnamese: Native language.
English: IELTS 6.5 (R:8.0, L:6.5, W:6.5, S:5.5, date November 2023)
- Programming  C/C++, Python, Java, JavaScript, Git, MySQL, PostgreSQL.
Operating Systems: CentOS, Ubuntu, MacOS, Windows.
- Computer Science  Graph theory, Combinatorics, Programming language, Compiler, ...
- Misc.  Teamworking, L^AT_EX, Adobe Lightroom, Nikon Photography, classical piano





Awards and Honors

- 2020  **Erasmus-Mundus Scholarship for exchange studies**, International Credit Mobility - EC, worth €5230
- 2019  **Student with five good merits**, Hanoi University of Science and Technology

Social Activities

- University activities  **2019, 2021, 2023: ICT ReUnion day**, a warmly talk for ICT students (my University program), aiming to connect former and current ICT students to connect, update about our program, share experiences and opportunities.
- High school activities  **2017-2023: Seven-time key member and organizer of Future career talk show**, an annual warmly talk at my high school, aiming to connect former and current students, share university and life experiences, consult university admission.
A moment in 2019: *image*.
- Volunteering  Member of/Volunteering at:
- Volunteer team 10/1985 - Student Union (Hanoi University of Science and Technology).
 - Hanoi Math Open Day 2019
 - University Entrance Examinations in local high school during 2018-2022.

Miscellaneous Experiences and Projects

-  Simple KPL-Compiler project: github.com/nguyenluc99/KPL-Compiler
-  A* algorithm visualization in C++: github.com/nguyenluc99/AStarAlgorithm
-  Server on C10K challenge: github.com/nguyenluc99/SimpleHTTPServer
-  A transpiler that converts Python code into Java bytecode:
github.com/nguyenluc99/voc/commits/S3TiLuc

References

Available up on requests