

Huy Quang Duong

Nationality: Vietnamese (Permanent residence in Norway)

Source Code: <https://bitbucket.org/duonghuy/>

Azure: <https://huyduong.azurewebsites.net/>

Phone: +4798420887

Email: huydqyb@gmail.com

Github: <https://thi3n10ng.github.io/>

Summary

I have 10-year experience in working in industry and nearly 5 years doing research in academia. I have background in Computer Science, and I am good at Mathematics and at Programming.

Education

Ph.D. in Computer Science, NTNU, Norway

Mar 2017 - 2020

M.Sc. in Computer Science, Hunan University, China

Sep 2014 - Nov 2016

B.S. in Computer Science, Hanoi University of Technology, Vietnam

Sep 1999 - Jun 2004

Work Experience

2017 – Present

Research Fellow, Department of Computer Science, NTNU, Norway.

– I am a member of Data and Artificial Intelligence group, and working in the MUSED (Multi-Source Event Detection) project at NTNU, Norway. I develop solutions for working with big data streams in a wide-range of applications, e.g., classification, change detection, fraud detection, network attack detection. I have developed novel foundation and techniques for event detection. The short outcome:

P1. Optimize the memory usage in mining high profit product groups from customer database. Our method is **6 times lesser memory consumption**, and **10 times faster** than the existing methods.

P2. Propose a model to quickly adapt with the changes in user activity behaviors. My method is more accurate (4%) in classification task, the error rate is **12 times better** than the existing methods (ACM CIKM, Rank A, a top conference in information retrieval, data science and knowledge management).

P3. Develop theoretical foundation for multiple dense subtensor detection, higher density guarantee in tensor and graph data. Propose a new technique to detect **multiple dense subtensors**. The method is **two million times more accurate** on the density and **6.9 times faster** (IEEE ICDE, Rank A*, premier conference in Data Engineering and Data-intensive systems, directly accepted, acceptance rate ~3%).

– Techniques: Java, MatLab, Python.

2013 – 2014

Senior Software Engineer, MB Bank, Vietnam.

– Developed enterprise applications (HR) and business processing management (BPM) (appraisal process, loan process) using software-AG product, Process Maker, service monitoring tool. Advised and fixed vulnerabilities and flaws of applications and systems.

– Platform & Techniques: Web Applications & Windows Services. Software-AG, SQL-Server, .NET, C#.

2011 – 2013

Solution Architect, Team Leader, VTCMobile, Vietnam.

– Built Back-End framework, designed and constructed MongoDB system (servers, slaves, log, shading & replicaset) services for applications and games on mobile platform. Analyzed, designed databases and developed backends, restful services using C#, .NET, SQL-Server, NoSQL-MongoDB, OAuth.

2006 – 2011

Researcher, CDIT, Vietnam.

– Designed solutions and developed applications for Vietnam Post, used in all post offices in all cities and provinces: Telecommunications service management, money transfer service management, parcel and package management, auto-update application.

– Platform & Techniques: Window & Web Based Applications, .NET, C#, SQL-Server, Oracle.

At the same time, I held the position as outsource software engineer for Vingroup, Vietnam.

– Built HR system, Booking online, Member Management System, Real Estate Management.

– Platform: Window & Web Based Applications, C#, .NET, DevExpress, SQL-Server.

2004 – 2006

Software Engineer, Vinacomm, Vietnam (VCCorp).

– Built content management system, news and financial (stock) service applications. Built indicator, candle, pattern recognition and rebuilt system with new technology, C#, .NET, MemCache, NoSQL-Redis.

Honors and Awards

- | | |
|---|------|
| 1. National award in Mathematics , competition for every high school student | 1999 |
| 2. Prospective Employee of the Year Award , MBBank (~6.9K employees) | 2014 |
| 3. Selected for Best Papers of the Industrial Conference on Data Mining Conference | 2016 |

Skills

– **Programming:** C#, ASP.NET, Java, C++, Matlab, Python, Javascript (jQuery), RDBMS (SQL Server, Oracle, MySQL), NoSQL (MongoDB, Redis), Git.

– **Data Science:** Data Mining (MOA), Machine Learning (scikit-learn, Keras, PyTorch, TensorFlow), SQL (SQL Server, Oracle, MySQL), Pandas, Numpy, Scipy, Matplotlib.

– **Research:** Event Detection, Network Analysis, Pattern Mining, Sketching, Optimization, Data Mining and Knowledge Discovery, Statistical Analysis.

– **Tools:** Visual Studio, Eclipse, RStudio, Jira, Mantis Bug Tracker, Mind Manager, Ext.Net, DevExpress, PyCharm, CodeSmith Generator.

Publications

– 14 peer-reviewed scientific articles, 206 citations, h-index 8.

– For more details, please see my Google Scholar: <https://scholar.google.com/>

Languages

Vietnamese (native), English (fluent), Norwegian (Level 2 at NTNU ~ B1/B2 CEFR), Chinese (basic).

References

Prof. Heri Ramampiaro
Deputy Head of Department of
Computer Science, NTNU, Norway
Email heri@ntnu.no
Phone +47-73591459
+47-99027656

Prof. Philippe Fournier-Viger
Director of Center of Innovative In-
dustrial Design, Harbin Institute of
Technology, China
Email philfv@hitsz.edu.cn
philfv8@yahoo.com
Phone +86-13699775514

Prof. Kjetil Nørvåg
Department of Computer Sci-
ence, NTNU, Norway
Email noervaag@ntnu.no
Phone +47-41440433