# Huy Quang Duong

Phone	+47 9842 0887	Source Code	https://bitbucket.org/duonghuy
Email	huydqyb@gmail.com	Linkedin	https://www.linkedin.com/duonghuy

## Summary

Experienced software developer and researcher with 15+ years of experience, including 10+ years in industry and 5 years in academia, working on developing business and scientific solutions based on cutting-edge technologies and advance algorithms. Demonstrated skillful with C#, C++, Java, Python, and Matlab with traced records of innovative breakthrough scientific publications.

## Work Experience

#### Stingray Marine Solutions AS, Oslo, Norway - Senior Software Developer

2020 - Present

- Navigator Backend, Command Gateway & Node Simulator for routing commands between nodes and users.
- Rest Api, Background Service, NetCore, MongoDb, OAuth2, Message Queue, CQRS, Event Sourcing, SignalR.

## **Department of Computer Science, NTNU, Trondheim, Norway** - Research Fellow

Mar 2017 - Nov 2020

– Developed solutions and theoretical foundations for event detection (changes, anomalies, fraud and network attack), novel algorithm for multiple dense subtensor and subgraph detection, improved accuracy on density two million times and 6.9 times faster. For more details, please check Google Scholar page. Use Java, MatLab, Python.

#### Military Bank, Hanoi, Vietnam - Senior Software Engineer

2013 - 2014

– 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. Use web & windows services, Software-AG, SQL-Server, .NET, C#.

#### **VTCMobile, Hanoi, Vietnam** - Solution Architect, Team Leader

2011 - 2013

– 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.

### CDIT, Center for Development of Information Technology, Hanoi, Vietnam - Researcher

2006 - 2011

– 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. Use windows & web based applications, .NET, C#, SQL-Server, Oracle.

At the same time, I held a position as outsource software engineer at Vingroup, Vietnam (2006-2010). Built HR system, Booking online, Member Management System, Real Estate Management.

#### Vinacomm (VCCorp), Hanoi, Vietnam - Software Engineer

2004 - 200

– 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

- National award in Mathematics	For senior high school students	1999
<ul> <li>Potential Employee of the Year Award</li> </ul>	MBBank (~6.9K employees)	2014
<ul> <li>Selected for Best Papers</li> </ul>	The Industrial Conference on Data Mining Conference	2016
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#### Education

- Ph.D. in Computer Science	NTNU, Trondheim, Norway	2017 - 2020
<ul> <li>M.Sc. in Computer Science</li> </ul>	Hunan University, China	2014 - 2016
<ul> <li>B.S. in Computer Science</li> </ul>	Hanoi University of Technology, Vietnam	1999 - 2004

### Skills

**Programming:** C#, .NetCore, Java, C++, Matlab, Python, Javascript, SQL/ NOSQL.

**Data Science:** Data Mining (MOA), Machine Learning (Scikit-learn, Keras, PyTorch, TensorFlow), SQL DB (SQL Server, Oracle, MySQL), NoSQL DB(MongoDB, Redis), Pandas, Numpy, Scipy, Matplotlib, Git.

**Tools:** Visual Studio (+Code), Eclipse, RStudio, Jira, Mantis Bug Tracker, Docker, Mind Manager, Ext.Net, DevExpress, PyCharm, CodeSmith Generator.

## **Publications**

## Languages

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

<sup>– 16</sup> peer-reviewed scientific articles.