**Thuan Luong Nguyen**

Advanced Data Analytics – Graduate School – The University of North Texas

1155 Union Circle, Denton TX 76203

Email: Thuan.Nguyen@unt.edu

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**Education**

**Doctor of Philosophy (Ph.D.) in Information Systems**

08/2012 – 12/2016

College of Engineering and Computing

Nova Southeastern University

Fort Lauderdale, Florida

**Master of Sciences (M.S.) in Information Technology and Management**

08/2007 – 12/2011: Graduated with High Distinction

Naveen Jindal School of Management

The University of Texas at Dallas

Richardson, Texas

**Bachelor of Sciences (B.S.) in Computer Sciences**

01/1993 – 12/1995: Graduated with Highest Honors

College of Natural Sciences

The University of Texas at Austin

Austin, Texas

**Dissertation Title:** Assessing Knowledge Management Values by Using Intellectual Capital to Measure Organizational Performance

**Professional Certification**

**Graduate Certificate in Data Mining and Business Intelligence**

SAS Institute, Inc. and the University of Texas at Dallas

**Research Interests**

* Big Data Analytics, Machine Learning, and their applications
* Data Visualization
* Cloud Technology and Mobile Application Development for Data Analytics
* Knowledge Management and Intellectual Capital in the New Era of Artificial Intelligence, Machine Learning, and Deep Learning
* Software Engineering and New Programming Languages for Data Science

**Teaching Experiences**

**The University of North Texas: 2017 – Present**

The University of North Texas (UNT) is a public institution of higher-learning, the biggest university in the North Texas University System. UNT serves approximately 38,000 students in the Dallas-Fort Worth Metroplex. Selected duties include:

* Clinical Assistant Professor: 2017 - Present
* Teaching graduate courses in the Master of Science in Advanced Data Analytics and the Master of Science of Health and Public Service
* Curriculum development and improvement
* Conduct research on big data analytics, machine learning, and information systems
* Courses (Face-to-Face and Online) taught:
  + INSD 5150/ADTA 5250: Large Data Visualization
  + INSD 5160/ADTA 5260: Harvesting, Storing, and Retrieving Data
  + INSD 5170/ADTA 5340: Big Data Analytics & Machine Learning
  + HLSV 5300: Information Systems for Healthcare Management

**The University of Texas: 2012 – 2017**

The University of Texas at Dallas (UTD) is a higher-education institution, part of the University of Texas System, is located in the North Dallas Area. The University serves approximately 25,000 students.

* Being an adjunct professor teaching courses in the Department of Information Systems, Naveen Jindal School of Management, for over five years
* Having taught IS courses including
  + Object-Oriented Programming
  + Programming with Java
  + Mobile Web Application Development
  + Database Management
  + Systems Design and Analysis
  + Management Information Systems Topics

**Other Professional Experiences**

* Data analysis using SAS, SPSS, and STATA, and programming for data analytics applications with Python and R programming language.
* Information Technology (IT) and Management Information Systems (MIS), including database (Oracle, Microsoft SQL, MySQL, DB2), business intelligence and statistical analysis (SAS, SPSS, STATA), Enterprise Resources Planning (SAP).
* Designing and developing software applications with the cloud technology using Google Cloud Platform.
* Designing and developing software applications with popular programming languages, including Python, Java, C/C++, C#, PHP, COBOL, and Visual Basic
* Designing and developing mobile applications with popular web development programming languages such as HTML5, CSS3, Javascript, PHP, Python, and well-known libraries like JQuery, frameworks like JQuery mobile.
* Working with Windows and Linux Servers including business application servers (SAS, SAP), database servers (Microsoft SQL Server, MySQL), Web Servers (Apache)
* (Over 10 years) Software and system design of telecommunication and data communication systems, including popular wireless technologies (2nd-Generation: GSM, TDMA, CDMA (cdmaOne); 2.5-Generation: GPRS and EDGE; 3rd-Generation: UMTS (WCDMA) and CDMA2000), wireless over data networks, and optical networks.

**Awards**

* Awarded with the **Distinguished College Scholar Award** of the University of Texas at Austin
* Awarded with the **High Distinction Academic Honors** of the University of Texas at Dallas
* Awarded with the **Pride Award** of Nortel Networks Inc. for successful design and development of new products for GPRS and UMTS wireless networks

**Professional Membership**

* Association for Information Systems (AIS): Member
* Decision Science Institute (DSI): Member

**Peer-Reviewed Publications**

Thuan L Nguyen (2017). Evaluate Impacts of Big Data on Organizational Performance: Using Intellectual Capital as a Proxy. In *Proceedings of the 4th International Conference on Advances in Big Data Analytics*, Las Vegas, Nevada, USA, July 17 – 20, 2017.

Thuan L Nguyen (2017). Setting Up a Hadoop System in Cloud – A Lab Activity for Teaching Big Data Analytics. In *Proceedings of 2017 EDSIG Conference on Information Systems and Computing Education*, Austin, Texas, USA, November 5 – 8, 2017.

Thuan L Nguyen (2018). A Review of the Theoretical Views of the Firm - The Foundation of Research on the Impact of Knowledge Management and Intellectual Capital on Organizational Performance. In *Proceedings of the 49th Annual-Meeting Conference of Decision Sciences Institute - Southwest Region (SWDSI), March 7 - 10, 2018, Albuquerque, New Mexico, USA.*

**Presentation and Workshops**

Thuan L Nguyen (2018). *Apache Hadoop Ecosystem and Cloud Technology – A Hands-On Workshop*. The 49th Annual-Meeting Conference of Decision Sciences Institute - Southwest Region (SWDSI), March 7 - 10, 2018, Albuquerque, New Mexico, USA.

**Employment History**

**Advanced Data Analytics – Graduate School – The University of North Texas**

**2017 – Present**

**Clinical Assistant Professor**

Teaching and development curriculum of graduate courses in the Master of Science in Advanced Data Analytics and the Master of Science of Health and Public Service

**Naveen Jindal School of Management – The University of Texas at Dallas**

**06/2012 - 2017**

**Adjunct Professor**

Teaching Information Systems courses in the in the Department of Information Systems, Naveen Jindal School of Management, for over five years

**Naveen Jindal School of Management – The University of Texas at Dallas**

**06/2005 – 05/2012**

**IT Infrastructure Manager**

**Software System Specialist III**

Achievements

* Successfully designed, developed, and deployed the web application to control the accounting print system that has been used in the computer labs of the Naveen Jindal School of Management for the last seven years. It is a web application developed with the .NET framework, the object-oriented C# programming language, and Microsoft SQL Server database. The system provides necessary features to manage all activities - for both the administrators and the users - related to the lab printing. The system automatically provides the correct number of pages each student can print without charge based on the number of business courses - offered by the Naveen Jindal School of Management - he or she has registered each semester. The system uses the data, *i.e., who has registered business courses and how many courses*, extracted from the Registrar Office's database. All the activities of using the system and administering it are conveniently done in web browsers. The system allows students to log in with their UTD net ID, activating their print account once every semester, printing, and tracking each print job (*who, when, how many pages, from which computer, etc.*) he or she has released. The system allows the administrators to update the user data, *e.g., number of registered courses*, on the fly, and track every printing activity of each user. The system significantly reduces the printing cost in the computer labs for the school (75%) in each semester, especially the cost of cartridges and paper (*in comparison with the cost occurred in the labs before the deployment of the system.)*
* Successfully designed, developed, and deployed the Online Asset Management System (OAMS) that was used by different departments such as the Executive Education to manage all the property items under their supervision. The system was very easy and convenient to use. Both the user and the administrators could perform all their activities in web browsers. The OAMS system was designed and developed based on the implementation of a Supply Chain Management workflow that could manage the whole usage life of property items starting with the moment of being requested to acquire, then approved, ordered, delivered, used, moved, transferred, etc., and finally ending with the moment being released from the system, either for surplus or thrown away. The user could use the system to track and record any change in the profile of each property item on the fly, no matter what kind of change occurred, either location or custodianship, etc. The departments successfully used this system to manage all their properties until the PeopleSoft Property Management system was deployed by the UTD Procurement office.
* Successfully deployed popular analytic software such as SAS, STATA, GAUSS, Minitab, Palisade @RISK, etc. in a very cost-efficient environment. These academic software applications are used heavily by faculty members, Ph. D. students, and graduate students, in their teaching, learning, and research. For examples, SAS is deployed in three servers which the user can access from anywhere on campus and even from home. The user can quickly move from one server to another and run SAS on the same data set without having to move the data.

Responsibilities

* Responsible for the information technology infrastructure (software, hardware, systems) that supports both the academic and administrative activities of the Naveen Jindal School of Management.
* Responsible to provide and support (set up and maintain) a computing environment that could fulfill all the demands for research, teaching, and learning, activities of the faculty members, the Ph. D. students, and other students of the school.
* Responsible to deploy and administrate the business information systems used by the faculty members and students for their research, teaching, and learning; these systems include the business intelligence (BI) system as SAS servers, Enterprise Resource Planning (ERP) system as SAP R/3 SaaS (Software as a Service) and SAP Business One, Statistical Analysis as SAS, GAUSS, STATA, MiniTAB, etc.
* Responsible for planning, hiring, and supervising computer labs staffs.

**Nortel Networks Inc. - Richardson, Texas**

**05/2002 - 05/2005**

**Lead Software Designer and System Designer**

Achievements

* Successfully designed, developed, design tested, and delivered multiple subsystems of multimedia gateways.
* Successfully completed all the assigned projects as scheduled, within budget, with scalable design, with a reliable load of code, and easy for maintenance.

Responsibilities

* Responsible to author the system requirements based on the latest approved standards related to the product.
* Responsible to design, develop, and test the Base-Module of the Multimedia Applications Server working with SIP Stack Servers.
* Responsible to author high-level design (HLD) and the detailed design of the Layer-2 Relay layer that handles the communication between the M2UA (MTP2 User Adaptor) layer and the SAAL (Signaling ATM Adaptor Layer) layer for the Media Gateway (VoIP).
* Responsible to design, develop, and test the Media Gateway Integrity Audits System of the Media Gateway.

**Latus Lightworks Inc. - Richardson, Texas**

**11/2000 - 05/2002**

**Lead System Designer**

Achievements

* Successfully designed and developed the Transmission Management Embedded System of the WaveBand 5000, an Optical DWDM (Dense Wavelength Division Multiplexing) system that could carry up to 1024 beams in the same optical fiber.

Responsibilities

* Responsible to author the system requirements for the Transmission Management Embedded System of the WaveBand 5000 product: an Optical DWDM System for use in long-haul terrestrial transmission for applications referred to as long-haul backbone networks.
* Responsible to write the high-level design (HLD) and detailed design (DD), designing and developing the Transmission Management Embedded Software System. This embedded software system manages end-to-end transmission of optical signals, both DWDM signals and client SONET/SDH signals, through the Optical Transport Networks handled by the WaveBand 5000 systems, which include all categories of Network Elements: Terminal Sites, In-Line Sites, and OADM Sites. The design and development is based on the latest approved standards specified in ITU-T G.872, ITU-T G.709, Telcordia GR-2918-CORE, Telcordia GR-253-CORE, etc.
* Responsible for the design of the inter-communication between the Transmission Management Embedded Software System and TL-1 Agents, LEI (Latus Element Interface) Sessions, and EMS/NMS Agents. The inter-communication is done via IDL (CORBA) interface standards.

**Nortel Networks Inc. - Richardson, Texas**

**12/1995 - 11/2000**

**Senior Software Designer**

Achievements

* Successfully designed the Transaction Description Language and created the Transaction Description Language Parser. The language and the parser were officially embedded in the Nortel MSC GSM Billing System that was a default module available in all Nortel commercial GSM switches for telecommunication carriers.
* Being a member of a very small team (3 software engineers) that successfully created a prototype of wireless (CDMA) phone service over IP - the first in the industry then.
* Successfully designed and developed a MAP (GSM) over IP subsystem for the Signaling System of GPRS networks (Nortel) during an extremely tight schedule. The product is greatly robust, reliable, and scalable.

Responsibilities

* Responsible to author the high-level design (HLD) for Quality of Service (QoS) features of GPRS networks, design and develop features of Quality of Services (QoS) of GPRS and UMTS Networks, and design a queue system for traffic shaping of GPRS and UMTS.
* Responsible to author a Nortel’s proprietary protocol that facilitates the traffic between SGSN of GPRS networks and HLR via SS7-IP-Gateway so that IP signaling traffic can access and travel through SS7 networks.
* Responsible for designing and development of a software system that monitors the operations of a cell site of TDMA Fixed Wireless Systems