MINH N. B. NGUYEN

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INTERESTS

AI, Data Mining, Machine Learning, Visualization, Human-Computer Interaction

EDUCATION

MSc, Computer Science, University of Southern California (USC), Los Angeles   Dec 2017
Area: Visualization, Data Mining, HCI

BEng, Computer Science, Ho Chi Minh City University of Technology, Vietnam   April 2014
Graduated Honor – Top 3%
Area: Mobile Privacy, Security

PROFESSIONAL EXPERIENCES

Research Intern, IBM T.J Watson Research Center, NY   2017
Data Science, AI for Social Good, NLP, Sustainability

- *Project Simpler Voice (Overcoming Illiteracy)*
    - Building AI system to allow low-literate adults to "navigate the information-dense world with confidence": Decoding complex texts, extracting the basic message & presenting to users through visuals & simple spoken messages.

Research Assistant, Integrated Media Systems Center, USC   2014-2017
Data Mining, Visualization, Human-Computer Interaction, Multivariate Time-Series

- *Project ATOM-HP: Analytical Technologies to Objectively Measure Human Performance*
    - Developing multi-sensors systems & analyzing retrieved data to support chemotherapy.
    - System deployment & maintenance at 3 hospitals.
    - Demo participated in the program of Cancer Moonshot at The White House.

- *Project PoCM: Point of Care Remote Mobility Monitoring*
    - Developing a novel Kinect-based assessment/monitoring tool for Parkinson's disease.
    - Testing the system in clinical settings & evaluating the system's performance.

Research Student, HCMC University of Technology, Vietnam   2012-2014
Mobile Data Privacy, Biometric Authentication

- *Project Data Protection in Mobile Devices using Biometrics*
    - Developing a framework to protect sensitive mobile data using human biometrics (face, voice, iris, fingerprint) privately.

Web Development Intern, East Agile, Vietnam   2012
Agile Methodology, Pair Programming, Ruby-on-Rails (ROR), TDD / BDD

- *Project Resource Management:* Developing internal resource management web platform.
- *Project Have-You-Seen TV:* Developing a web app for videos & channels streaming/sharing.

OTHER PROFESSIONAL & COMMUNITY ACTIVITIES & SERVICES

Teaching Assistant:

- USC, *CSCI 585: Database Systems*   2016, 2017
    - A graduate course covering essential concepts, principles & mechanisms for the design & implementation of DBs: SQL, non-SQL, Spatial DBs, MapReduce, Apache Tinkerpop, etc.
- HCMUT, *CS - Artficial Intelligence*   2012
    - An undergrad course covering essential principles, algorithms & applications of AI.
- Holding office hours, developing assignments & quizzes, proctoring & coordinated regrading exams

Guest Lecturer: USC, INF 552: Machine Learning for Data Informatics   2015

- Tutorials of Mining Data using Weka & Activity Recognition using Wearable Sensors.

Student Volunteer: Grace Hopper Conference (2016), ICDM (2015), SSEAYP (Vietnam, 2011)
Mentor: Mentoring high school & undergrad students on summer projects (USC, 2014-2016)
Student Club President: Organizing seminars & talks for CS students (HCMUT, 2012-2013)

HONORS, AWARDS & GRANTS

Fellow, Vietnam Education Foundation (VEF) Fellowship: 2014-2017
Awarded to the top national 40 students in Vietnam annually in STEM fields to help them pursue
graduate degrees in the USA. Each fellow receives $54,000 & other Professional Development Grants.

Fellow, IBM Social Good Fellowship: 2017
Awarded to 15 graduate students in the US annually. Fellows work with non-governmental
organizations & are mentored by IBM Research Scientists in social good projects.

Awardee, Annual HCMUT Dean's Scholarship for Honor Student: 2009-2014
Awarded to the top 3% undergrad honors students at HCMC University of Technology covering full tuition

Other scholarships & grants:
Fellow, CRA-W Grad Cohort 2017	2017
Awardee, USC Grace Hopper Scholarship	2016
Awardee, Women in Science & Engineering (WiSE) Travel Grant	2015, 2016
Awardee, IEEE International Conference on Data Mining Student Travel Award	2015
Awardee, Odon Vallet Scholarship	2013
Awardee, Kanden System Solutions Scholarship	2013

TECHNICAL SKILLS

- Python, C++, Java, Ruby, C#, Scala, HTML, CSS, Javascript, SQL, Pig Latin, Matlab, R, Gremlin.
- MySQL, Postgres, NoSQL, Spatial-DBs, Apache Tinkerpop, MapReduce.
- NumPy, Matplotlib, NLTK, Weka, TensorFlow.
- Agile Methodology, Pair Programming, Git.

PUBLICATIONS

Papers (Peer-Reviewed)

- **M. Nguyen*** et al., "*Mining Human Mobility to Quantify Performance Status*", 2017 IEEE International Conference on Data Mining (Demo Paper), New Orleans, LA, 2017.
- **M. Nguyen** et al.,"*m-TSNE: A Framework for Visualizing High-Dimensional Multivariate Time Series*", VAHC2016 Workshop on Visual Analytics in Healthcare in conjunction with AMIA 2016, Chicago, IL, 2016.
- J. Kao, **M. Nguyen**, L. Nocera, C. Shahabi, A. Ortega, C. Winstein, I. Sorkhoh, Y. Chung, Y. Chen, and H. Bacon, "*Validation of Automated Mobility Assessment using a Single 3D Sensor*", ACVR2016 in conjunction with ECCV2016, Amsterdam, The Netherlands, 2016.
- **M. Nguyen** et al., "*Activity Recognition Using Wrist-Worn Sensors for Human Performance Evaluation*", BioDM2015 in conjunction with ICDM 2015, Atlantic City, New Jersey, 2015.
- V. N. Nguyen, V. Q. Nguyen, **M. Nguyen**, and T. K. Dang, "*Fuzzy logic weight estimation in biometric-enabled co-authentication systems*", ICT-EurAsia Conference 2014, Bali, Indonesia, 2014.

Technical Reports

- **M. Nguyen*** et al., "*SimplerVoice: A Key Message & Visual Description Generator System for Illiteracy*", Data For Good Exchange Conference 2018 (D4GX), New York City, NY, 2018.
- H. To, S. Tavakkol, S.H. Kim, **M. Nguyen**, and C. Shahabi, "*On Acquisition and Analysis of Visual Data for Crowdsourcing Disaster Response*", USC, 2016.

Posters

- **M. Nguyen** et al., "*SimplerVoice: A Key Message & Visual Description Generator System for Illiteracy*", Data For Good Exchange Conference 2018 (D4GX), New York City, NY, 2018.
- **M. Nguyen** et al., "*SimplerVoice (Overcoming Illiteracy)*", Neural Information Processing Systems (NIPS) - Women in Machine Learning Workshop, Long Beach, CA, 2017.
- **M. Nguyen** et al., "*ATOM-HP: Analytical Technologies to Objectively Measure Human Performance – Data Analysis*", 2017 Integrated Media Systems Center Retreat, USC, 2017.
- **M. Nguyen** et al., "*ATOM-HP: Analytical Technologies to Objectively Measure Human Performance - System & Data Preprocessing*", 2016 Integrated Media Systems Center Retreat, USC, 2016.
- **M. Nguyen** et al., "*Human Activity Recognition with Wearable Devices*", 2015 Integrated Media Systems Center Retreat, USC, 2015.