Bang (Benz) Tran

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EXECUTIVE SUMMARY

Bang Tran is an Assistant Professor of the Department of Mathematics and Computer Science at the D'Amour College of Liberal Arts and Science, Assumption University (AU). He was a senior lecturer at the University of Transport and Communications (UTC), Vietnam in 2003-2018. He received a Ph.D. degree in Computer Science from the University of Massachusetts Boston (UMB) in 2023, under the supervision of Prof. Xiaohui Liang. He received the BSc degree in Information Technology from Hanoi National University; received MSc degree in Software Engineering from Hochiminh National University, Vietnam in 2001 and 2009 respectively. His research interests include enhancing privacy for IoT systems, large language models, and security of mobile systems. He received the Excellent Teaching Award from UTC in 2016 and 2017. He achieved the Best Paper Award from IEEE International Conference on Communications (ICC) in 2021. For more information, see https://benztran.com

EDUCATION

- **University of Massachusetts Boston** — Boston, MA
  Ph.D. Computer Science — *Jan. 2019 – May. 2023*

- **Vietnam National University, Ho Chi Minh** — Ho Chi Minh City, Vietnam
  Master of Science in Software Engineering — *Sep. 2007 – Dec. 2009*

- **Vietnam National University, Hanoi** — Hanoi, Vietnam
  Bachelor of Engineering in Information Technology — *Sep. 1997 – Jul. 2001*

POSITIONS

- **AU** — Worcester, MA
  Assistant Professor — *Aug. 2023 – present*
  - **Teaching:**: Instructor for undergraduate courses: CSC117, (Introduction to Programming), CSC250 (Intermediate Programming), CSC260 (Command-line Interfaces), CSC233 (Larg Dataset), CSC305 (Data Structure).
  - **Advising Service:**: Haven't started yet.

- **UMB** — Boston, MA
  Teach Assistant — *Sep. 2021 – May. 2023*
  - **Teaching:**: Instructor for undergraduate courses: CS110 (Introduction to Programming), CS210 (Intermediate Programming with Data structures), CS220 (Discrete Mathematics).
  - **Grading, Tutoring:**: Grading and Tutoring for graduate course CS624 (Algorithm Analysis)

- **UMB** — Boston, MA
  Research Assistant at MobCP Laboratory — *Jan. 2019 – May. 2020*
  - **Research Assistant**: Conducting researches on the project "NSF NeTS, Towards Privacy-Preserving Autonomous Vehicle Sharing Services". Collaboration between UMB and Tennessee Technology University.

- **UTC2** — Ho Chi Minh, Vietnam
  Executive Director of Library and Information Center (Concurrent job) — *Jul. 2016 – Dec. 2018*
  - **IT manager**: IT solutions coordinator for UTC Campus 2. Maintaining the IT infrastructures of the campus (including computer networks, wireless network, in-campus/out-campus data center).
  - **Employees manager**: Overseeing general conduct of the librarians and IT center employees.

- **UTC2** — Ho Chi Minh, Vietnam
  Head of Student Affairs and Propaganda Office (Concurrent job) — *Apr. 2014 – Jun. 2016*
  - **UTC2 Spokesperson**: Be representative speaker of UTC2 to the Press.

- **Advertisement services**: Executive advertisement activities for the campus.
  - **Commendation and Reward services**: Executive processing of commendation and reward activities for the faculties and staff members of the campus. Co-operating with the office's leaders from the Campus 1 (Hanoi).
  - **Student administration services**: Executor of managing in-campus/out-campus students(e.g., status certification, discipline process, commendation and reward processes, etc.)

- **UTC2**   Ho Chi Minh, Vietnam
  Deputy Head of Education Office (Concurrent job)   *Oct. 2007 – Mar. 2013*
  - **Courses Coordinator**: Coordinating, Scheduling full-time and part-time classes (avg. 150 classes per semester).
  - **Admission services**: Full-time admission processes once per year; Part-time admission processes twice per year.
  - **Graduation services**: Once per year for full-time programs (all majors); twice per year for part-time programs.
  - **Student management services**: Coordinator of student managing in-campus/out-campus students(e.g., student status certification, student discipline process, student commendation and reward process, etc.)

- **Global Technology LLC**   35-37 Ly Thuong Kiet st., Hanoi, Vietnam
  Software Engineer; Local Network Administrator   *Jul. 2001 – Oct. 2002*
  - **Front-End Developer**: Creating API websites allowing users to submit information by storing into SQL Server, MySQL server.
  - **Local Network Administrator**: Co-Administrator the main server of the company; maintaining the company's website.

Honors and Awards

- ICC 2021 Best paper award (15/1881).   *Jun. 2021*

- Erasmus Mundus Higher Education Fellowship.   *Jan. 2017*

- UTC's Excellent Teaching Award for the academic year 2015-2016.   *Nov. 2016*

- UTC's Excellent Teaching Award for the academic year 2014-2015.   *Nov. 2015*

- Commendation from the Chairman of Ho Chi Minh city People's Committee.   *Apr. 2015*

- Commendation from Youth Union of Ho Chi Minh City.   *May. 2014*

- UTC's Excellent Teaching Award for the academic year 2012-2013.   *Oct. 2013*

Publications

1. Bang Tran, Xiaohui Liang, Gabriel Ghinita, Caroline Summerour, John A. Batsis. Poster + 2 pages of abstract *"Voice Privacy Asisstant for Monitoring In-home Voice Commands"* in the Nineteenth Symposium on Usable Privacy and Security (SOUPS 2023).

2. Bang Tran, Sai Harshavardhan Reddy Kona, Xiaohui Liang, Gabriel Ghinita, Caroline Summerour, John A. Batsis. "VPASS: Voice Privacy Assistant System for Monitoring In-home Voice Commands" in The 20th Annual International Conference on Privacy, Security & Privacy (PST 2023).

3. Bang Tran, Youxiang Zhu, James W. Schwoebel, and Xiaohui Liang. *"Exploiting Relevance of Speech to Sleepiness Detection via Attention Mechanism"* – ICC 2023.

4. Eli Kurtz, Youxiang Zhu, Tiffany Driesse, Bang Tran, John A. Batsis, Robert M. Roth, and Xiaohui Liang. *"Early detection of cognitive decline using voice assistant commands"* in ICASSP 2023 .

5. Bang Tran, Youxiang Zhu, Xiaohui Liang, James W. Schwoebel, Lindsay A. Warrenburg. *"Speech Tasks Relevant To Sleepiness Determined With Deep Transfer Learning"* In ICASSP 2022 - IEEE International Conference on Acoustics, Speech and Signal Processing.

6. Youxiang Zhu, Bang Tran, Xiaohui Liang, John Batsis, Robert Roth. *"Towards Interpretability of Speech Pause in Dementia Detection using Adversarial Learning"* In ICASSP 2022 - IEEE International Conference on Acoustics, Speech and Signal Processing.

7. Bang Tran, Shenhui Pan, Xiaohui Liang, and Honggang Zhang. *"Exploiting Physical Presence Sensing to Secure Voice Assistant Systems."* In ICC 2021-IEEE International Conference on Communications, pp. 1-6. IEEE, 2021.

8. Bang Tran, and Xiaohui Liang. *"Exploiting peer-to-peer communications for query privacy preservation in voice assistant systems."* Peer-to-Peer Networking and Applications 14, no. 3 (2021): 1475-1487.

9. Do, Thi Thu Hang, Bang Quang Hai Tran, and Quang Dieu Tran. *"Movie indexing and summarization using social network techniques."* Vietnam Journal of Computer Science 5, no. 2 (2018): 157-164.

10. Tuan Anh Nguyen, Quang Trung Le, Bang Quang Hai Tran, and Dang Van Huynh. *"R-IoT: A Framework for IoTs Reconfiguration in Cloud."* (2017).

11. Bang Q.H. Tran, Thi Hai Binh Nguyen, Phong Nha Tran, Thi Thanh Nga Tran, and Quang Dieu Tran. *"Story-based multimedia analysis using social network technique."* In International Conference on Computer Science, Applied Mathematics and Applications, pp. 95-106. Springer, Cham, 2017.

COMMUNITY SERVICE (TO BE UPDATED)

- Vice President of English Learner Parent Adversary Council - Quincy District School (Sep. 2020 - Jun. 2023). Conduction survey among English learner families; Advising and being relevant bridge between student's parents and the Quincy Public Schools, Massachusetts, USA.

- Two years representative of Vietnamese Culture and Community in the Multi Culture Festival of the Quincy City, Massachusetts (in May 2023 and May 2022).

- Free Vietnamese Interpreter for public safety meetings of Quincy City, MA (Feb. 2022).

- Head of Youth Union's Summer Camp at Can Gio province, Hochiminh City, Vietnam (June 2012 - August 2022). Organizing and conducting the project of mentoring middle school students in safety using the Internet for studying and entertaining.

- Head of Youth Union's Summer Camp at District Nine, Hochiminh City, Vietnam (June 2013 - August 2013). Fund raising for the project of improving local bridge for residents in rural area of the District 9th, Hochiminh city, Vietnam.

- Head of Youth Union's Summer Camp at Ben Tre Province, Vietnam (June 2014 - August 2014). Fund raising for the project of improving local bridge for residents in three rural town of the Ben Tre, Vietnam.