Tien Pham
(Pham Canh An Tien)

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Web: portfolio

EDUCATION

- **University of Texas at Arlington** — **Arlington, TX, U.S.**
  Master of Science in Computer Science — January 2021 - Present
  GPA: 4.00/4.00*

  Thesis: Context-Aware Interface and Semi-Autonomous Smart Wheelchair*
  Advisor: Malfred Huber, Ph.D.
  Courseworks: Cloud Computing, Data Mining, Database Management ,Computer Architecture, Data Analysis & Modeling Techniques, Design and Analysis Algorithms, Distributed Systems, and Machine Learning.

- **University of Technology, Vietnam National University** — **Ho Chi Minh City, Vietnam**
  Bachelor of Engineering in Mechatronics (PFIEV Program) — July 2014 - July 2019
  GPA: 8.33/10.00
  Thesis: Design of Udulating Fin Applying for Autonomous Underwater Vehicle *(Score: 9.54/10.00)*
  Advisor: Tan-Tien Nguyen, Ph.D.

HONORS AND AWARDS

- Scholarships in 10 consecutive semesters in the PFIEV program, from 2014 to 2019
- Excellent Student Award, 2018 & 2019
- ACM SIGMOBILE Research Highlights 2022

TEACHING EXPERIENCE

- Graduate Teaching Assistant, CSE 5301-008: *Data Analysis and Modeling Techniques*, Fall 2022.
- Graduate Teaching Assistant, CSE 6331-004: *Advanced Topics in Database Systems*, Summer 2022.
- Graduate Teaching Assistant, CSE 6331-002: *Advanced Topics in Database Systems*, Summer 2022.
- Graduate Teaching Assistant, CSE 3320-001: *Operating Systems*, Summer 2021.

RESEARCH EXPERIENCE

- **Learning and Adaptive Robotics (LEARN) Lab** — **Arlington, TX, U.S.**
  Graduate Research Assistant — September 2022 - Present
  - Developing the Context-Aware Interface for disabled to interact with the wheelchair hand-freely while implement autonomous control for safety assurance.

- **Wireless and Sensor Systems Lab** — **Arlington, TX, U.S.**
  Graduate Research Assistant — January 2021 - May 2022
  - Worked on wearable devices for Medical Application

- **Robert BOSCH Engineering & Business Solutions Vietnam** — **Ho Chi Minh City, Vietnam**
  Embedded Software Developer — September 2019 - December 2020
  - Designed and executed platform of AUTOSAR Architecture for ECUs in automotive domain.
  - Developed OSEK Network Management for integrating to AUTOSAR Architecture.

- **Vietnam National DCSELab** — **Ho Chi Minh City, Vietnam**
  Undergraduate Research Assistant — July 2016 - July 2019
  - Designed and developed the gymnotiform undulating fin module.
  - Developed the computational model simulating the process of undulating fin in CFD.
  - Modeled the forces, moment, and other external forces affecting to the swimming process of the fin.
  - Developed an algorithm for non-linear control theory, including back-stepping control and sliding mode control.

PUBLICATIONS

- Tuan Dang, Trung Tran, Khang Nguyen, **Tien Pham**, Nhat Pham, Tam Vu, and Phuc Nguyen (2022). *"IoTree: A Battery-free Wearable System with Biocompatible Sensors for Continuous Tree Health Monitoring"* in Proceedings of the 28th Annual International Conference on Mobile Computing and Networking (MobiCom 2022).

- Tuan Dang, Trung Tran, Khang Nguyen, **Tien Pham**, Nhat Pham, Tam Vu, and Phuc Nguyen (2022). *"IoTree: Demo"* in Proceedings of the 28th Annual International Conference on Mobile Computing and Networking (MobiCom 2022).

- Vimal Kakaraparthi, Qijia Shao, Charles Carver, **Tien Pham**, Nam Bui, Phuc Nguyen, Xia Zhou, and Tam Vu (2021). *"FaceSense: Sensing Face Touch with An Ear-worn System."* in Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (pp. 1-27).

- Yi Wu, Vimal Kakaraparthi, Zhang Li, **Tien Pham**, Jian Liu, Phuc Nguyen (2021). *"BioFace-3D: Continuous 3D Facial Reconstruction through Lightweight Single-Ear Biosensors"* in Proceedings of the 27th Annual International Conference on Mobile Computing and Networking (pp. 350-363).

- Van Hien Nguyen, **Canh An Tien Pham**, Van Dong Nguyen, Tan Tien Nguyen (2019). *"Study on Velocity Control of Gymnotiform Undulating Fin Module"* at the International Conference on Advanced Engineering Theory and Applications. Springer, Charm (pp. 714-725).

- Van Hien Nguyen, **Canh An Tien Pham**, Van Dong Nguyen, Hoang Long Phan, Tan Tien Nguyen (2018). *"Computational Study on Upward Force Generation of Gymnotiform Undulating Fin"* at the International Conference on Advanced Engineering Theory and Applications. Springer, Charm (pp. 914-923).

- Van Dong Nguyen, **Canh An Tien Pham**, Van Hien Nguyen, Thien Phuc Tran, Tan Tien Nguyen (2018). *"Modular Design of Gymnotiform Undulating Fin"* at the International Conference on Advanced Engineering Theory and Applications. Springer, Charm (pp. 924-931).

- Van Hien Nguyen, **Canh An Tien Pham**, Van Dong Nguyen, Dae Hwan Kim, Tan Tien Nguyen (2018). *"A Study on Force Generated by Gymnotiform Undulating Fin"* at the 15th International Conference on Ubiquitous Robots (UR). IEEE. (pp. 241-246).

PATENTS

- **Method and Apparatus for Continuous Plant Health Monitoring Using a Battery-free System with Biocompatible Implanted Sensors. (2022, accepted)**

- **Method and Apparatus for Continuous 3D Facial Reconstruction Through Lightweight Single-ear(2021).**

SKILLS & COMPETENCIES

- **Coding**: MATLAB, Python, C, C++ and SQL.
- **Software**: SOLIDWORKS, AUTOCAD, ANSYS FLUENT, Form Labs.
- **Skills**: ROS, Signal Processing, Data Analysis, Modeling, Machine Learning, Database Management, Image Processing, Cloud Computing, and Control Theory.
- **Languages**: Vietnamese (Native), English (IELTS 7.0), and French (DELF B1).
- **GRE**: Verbal: 144/170 and Quantitative: 164/170.