Mai Huong Do

PhD - Institut de Recherche en Informatique de Toulouse
Université Toulouse III
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Education

- **University of Toulouse III (UT3)** — *Apr 2024 - current*
  Major: Computer Science - PhD — Toulouse, France
  - **Thesis:** "Exploring the tradeoffs between energy and performance of federated learning algorithms"; **Grant funded by ANR DELIGHT project.**
  - **Advisor:** Prof. Georges Da Costa and Maitre de conf. Millian Poquet.

- **Soongsil University (SSU)** — *Aug 2021 - Jan 2024*
  Major: Information Communication Convergence Technology - Master — Seoul, South Korea
  - **Thesis:** "Energy -Delay Optimization in Mobile Edge Computing Federation System"; **Grant funded by IITP & MSIT, Korea.**
  - **Advisor:** Prof. Yoo Myung Sik.

- **Hanoi University of Science and Technology (HUST)** — *Sep 2015 - Oct 2020*
  Major: Electronics and Telecommunications - Bachelor — Hanoi, Vietnam
  - **Thesis:** "Geodetic Antenna Design for GNSS/GPS application (frequency range from 1570 to 1610 MHz)"; **Grant funded by IoG Vietnam.**
  - **Advisor:** Dr. Lam Hong Thach.

Skills

- **Skill:** Python, Grid'5000 system, Machine learning.
- **Soft skills:** Teamwork, Individual work, Task organization.
- **Languages:** Vietnamese (native), English.

Experience

- **IRIT Lab - University of Toulouse III** — *Apr 2024 - current*
  PhD — Toulouse, France
  - **Project:** Exploring the tradeoffs between Energy and Performance of Federated Learning algorithms.
  - **Description:** Create a use-case for Flower - a Federated Learning framework, working on Grid'5000. Build a reproducible and automated framework to gather performance and energy metrics to explore the impact of the leverages.

- **ANDA Lab - Soongsil University** — *Aug 2021 - Jan 20204*
  Master student/ Researcher Assistant — Seoul, South Korea
  - **Project:** Resource Allocation and Task Offloading in the IIoT system in MEC.
  - **Description:** Propose a new MEC federation model, formulate the optimization function of energy and time processing and solve it by a DRL method.

- **R&D system - VACE Antenna Co., Ltd** — *Jun 2020 - Aug 2021*
  Radio Unit (RU) System Engineer — Hanoi, Vietnam
  - **Project:** Remote Radio Head Configuration.
  - **Description:** Debug and evaluate the performance the Remote Radio Head module. Design verification & circuit optimization.

- **Institute of Geophysics (IoG) - VN Academy of Science & Technology** — *Oct 2019 - Jun 2020*
  Internship — Hanoi, Vietnam
  - **Project:** Microstrip (patch) antenna designing (for GNSS).
  - **Description:** Survey and evaluate the recent trends of antenna designing for GNSS application. Design the patch antenna by HFSS and build a real product.

Publications

- Do, H. M., Tran, T. P., & Yoo, M. (2023). Deep Reinforcement Learning-Based Task Offloading and Resource Allocation for Industrial IoT in MEC Federation System. *IEEE Access*.
- Do, H. M., & Yoo, M. (2023). Delay Optimization for Augmented Reality Service using Mobile Edge Computing Federation system. In *2023 14th International Conference on Information and Communication Technology Convergence (ICTC)*
- Do, H. M., & Yoo, M. (2023). Energy Consumption Optimization in Mobile Edge Computing Federation based Deep Reinforcement Learning. *한국통신학회 학술대회논문집*, 1834-1835.
- Do, H. M., & Yoo, M. (2022). Delay Optimization in Mobile Edge Computing Federation using Task Offloading and Resource Allocation. In *2022 13th International Conference on Information and Communication Technology Convergence (ICTC)* (pp. 767-770). IEEE.

Certificate and Awards

- The **best Graduation project** of the Telecommunications Council in HUST (2020), for the thesis topic: "Geodetic Antenna Design for GNSS/GPS application (frequency range from 1570 to 1610 MHz)".
- ETS TOEIC Official Score Certificate: Listening - 325, Reading - 280, Total - 605.

Reference

- **Prof. Georges Da Costa**, SEPIA team, IRIT - UT3, Toulouse;
  Email: georges.da-costa@irit.fr; Website.
- **Prof. Yoo Myung Sik**, Department of Electronic Engineering - SSU, Seoul;
  Email: myoo@ssu.ac.kr; Website.
- **Kang Mun Hyung**, R&D system - VACE Antenna Co., Ltd;
  Email: kingmuun@naver.com.
- **Dr. Lam Hong Thach**, Lecturer of SET - HUST;
  Email: thach.lamhong@hust.edu.vn.