# Minh N. Tran

github.com/tnminhlc tnminhlc.github.io/minhtran/

#### **EDUCATION**

08/2018 - present

#### The University of Arizona

Bachelor of Science in Computer Science
Bachelor of Arts in Psychology
Minor in Statistics & Data Science
Anticipated: December 2021

GPA: 3.787/4.0

#### **RESEARCH EXPERIENCE**

01/2021 – present Tucson, AZ

### Research Assistant, Compositional Systems Lab, University of Arizona

- Collaborate with graduate students, Post-Docs and other members of the CIRCLES, a
  multi-campus project on self-driving cars and connected vehicles, which aims to
  construct advanced models of vehicles suitable to the model-based design of cyberphysical systems and reduce traffic congestion effects by expertly controlling the
  velocity of vehicles that are driving in congested traffic.
- Participate in coding and computing tasks that are aligned with data analysis, machine learning, data curation, and automation of data gathering to support the project.
- Develop prototypes in Python and re-implement code in C/C++ for speed on either embedded computers or through minicomputers such as a Raspberry Pi
- Supervisor: Dr. Jonathan Sprinkle

09/2020 – present Tucson, AZ

#### **Research Team Member,** School of Informations, University of Arizona

- Work under a directed research course within the UA Holodeck, an NSF-funded research instrument envisioned as a software/hardware instrument incorporating visual, audio, and physical components and novel technologies to enhance social interactions
- Participate in the VIP-TAG (Tangible Activities for Geometry) team to assist faculty and graduate students with research and development issues
- Focus on the psychological curriculum design and algorithm design, and study how to integrate the lessons designed for children with the positional tracking system of a teachable robot
- **Supervisor:** Dr. Winslow Burleson

#### **WORK EXPERIENCE**

# 08/2020 – present Tucson, AZ

**Teaching Assistant,** Department of Computer Science, University of Arizona

- Assist in the instruction of CSC 335 Object-Oriented Programming course
- Mentor students in course lectures, online platforms, and via weekly office hours, and guide them through exercises on the related topics
- Collaborate with the primary course instructor and other teaching assistants to aid in the development of the course content
- Grade programming projects (including solo, pair, and team projects), labs, exams
- Instructor: Dr. Jonathan Misurda

# 11/2019 – 01/2021 Tucson, AZ

MMFE8 Tester, Elementary Experimental Particle Physics Department

- Participate in the physics research laboratory to help support the largest scientific collaboration in the world, the Large Hadron Collider (LHC) at CERN in Switzerland
- Test circuit boards for particle detectors
- Supervisor: Michelle Solis

# 04/2019 – 08/2020 Tucson, AZ

**Web Developer/Designer Assistant,** Arizona Student Unions

- Implement website architecture, programs, and scripts and design user interfaces
- Experience with PHP, SQL, JavaScript, ReactJS, HTML, CSS, Bootstrap, jQuery, Docker, Adobe Photoshop
- Supervisor: Yontaek Choi

# 01/2020 – 05/2020 Oro Valley, AZ

**Mathematics Tutor,** *Ironwood Ridge High School* 

- Tutor high school students in Math-related coursework
- Guide students through written assignments and MatLab projects

## 08/2019 – 12/2019 Tucson, AZ

**Outreach for Female Students in STEM,** Department of Mathematics

- Assigned with 4-5 freshman women in STEM majors, lead weekly group discussions and meetings about current events and research opportunities in STEM
- Encourage female students to stay in STEM majors by providing them with helpful resources

#### RELEVANT COURSEWORK

- **Computer Science:** Object-Oriented Programming and Design, Software Development, Computer Organization, Systems Programming & Unix, Web Programming, Discrete Mathematics in Computer Science, Analysis of Discrete Structures, Algorithms, Geometric Algorithms, Automata, Grammars and Languages
- Psychology: Structure of Mind & Behavior, Psychological Measurements and Statistics, Research Methods,
   Cognitive Development, Cognitive Neuroscience: A Guide to Mind and Brain, Cognitive Development, Positive Psychology, Social Psychology, Personality, Health Psychology, Animal Learning
- Statistics & Data Science: Statistical Methods, Statistical Computing
- Mathematics & Supporting Science: Calculus I/II, Vector Calculus, Linear Algebra, General Chemistry I/II

#### **TECHNICAL SKILLS**

#### **Programming**

Java, C Programming, JavaScript, PHP, HTML, CSS

#### Software

Git, VSCode, Eclipse, Microsoft Words, Microsoft Exel, Microsoft PowerPoint, Adobe Photoshop, Agile Software, Scrum, Selenium

#### **Programming**

Python, R Programming, Bash, SQL, MIPS, MatLab

#### **Others**

Bootstrap, jQuery, React, Adobe Illustrator

#### **HONORS & AWARDS**

#### National Round - Vietnam Fund for Supporting Technological Creations (VIFOTEC) | 4th Prize

**Project:** Improving and Applying SuperMemo 2 Algorithm & Visual Learning Techniques to build a Supporting System for Studying Specialized English in Math and Natural Sciences

#### National Round | Vietnam Science & Engineering Fair (ViSEF) | 4th Prize

**Project:** Study the application of Piezoelectric in High-Frequency Linear Rotational Electric Motors

#### The University of Arizona | Term Honors & Scholarships

Global Wildcat Award | 2018 - 2022 (4-Year Merit Scholarship)

Academic Year Academic Distinction | 2018 - 2021 (all academic years)

Dean's List With Distinction | Fall 2019

Dean's List | 2019 - 2021 (all semesters)

#### **SERVICE AND ACTIVITIES**

08/2019 – present	Our Lady of La Vang, Volunteering Vietnamese Teacher
10/2016 - 05/2018	Youth Lao Cai Model United Nations, Founder & Former President 🛭
10/2015 - 05/2018	CLC Multimedia, Former Vice President ☑