

# Nhan Tran

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🔗 [megatran](https://github.com/megatran)

## SKILLS

### PROGRAMMING

Python / Java / C++ / SQL

### OTHER

Unity / Tensorflow / Linux /  
Robot Operating Systems / Web  
Services / TCP/IP / Computer  
Networks

### LANGUAGES

Bilingual in Vietnamese &  
English/ Spanish (Proficient)

### DESIGN

Photoshop / AE / Premiere /  
Sketch / Graphics

## AWARDS

- Google scholarship to attend Grace Hopper Conference 2018
- 3rd Place Google Games 2018
- UC Berkeley CalHacks Fellowship 2018
- Google C-MAPP Fellowship 2017
- 1st Place @ LinkedIn Hackathon 2017
- 2nd Place @ Xilinx Hackathon 2017
- Best IoT Hack @ HackHarvard 2017
- 1st Place ConocoPhillips Programming Challenge 2016

## HOBBIES

### FILMMAKING, VIDEO & VISUAL EFFECTS EDITING

[trannhan.com/youtube](https://www.youtube.com/channel/UCm3v3v3v3v3v3v3v3v3v3v3)

### DESIGN GRAPHICS & EDIT ART JOURNAL

[highgrade.mines.edu](https://highgrade.mines.edu)

## RELEVANT

## COURSES

Human Centered Robotics  
AI & Machine Learning  
Human-Robot Interaction  
Robot Planning & Manipulation  
Computer Vision  
Advanced Computer Architecture

## EDUCATION

### Colorado School of Mines

M.S. and B.S. Computer Science + Robotics and Intelligent Systems

Thesis Advisor: Dr. Tom Williams

Honors: Outstanding Undergraduate Researcher 2018, Daniels Scholar-full college scholarship

Aug. 2014 - May 2020

GPA: 3.650/4.000

## RESEARCH AND PUBLICATIONS

### A Hands-Free Virtual-Reality Teleoperation Interface for Wizard-of-Oz Control · 2018

Nhan Tran, Josh Rands, and Tom Williams

International Workshop on Virtual, Augmented, and Mixed Reality for HRI | VAM-HRI, 2018

### Augmented, Mixed, and Virtual Reality Enabling of Robot Deixis · 2018

Tom Williams, Nhan Tran, Josh Rands and Neil T. Dantam

VAMR/HCI International Conference on Virtual, Augmented and Mixed Reality | VAMR, 2018

### Mixed Reality Deictic Gesture for Multi-Modal Robot Communication · 2019

Tom Williams, Matthew Bussing, Sebastian Cabroll, Elizabeth Boyle, Nhan Tran

ACM/IEEE International Conference on Human-Robot Interaction | HRI, 2019

## RESEARCH EXPERIENCE

### Mines Interactive Robotics Research Lab

Graduate Researcher and Project Lead (Advised by Dr. Tom Williams)

June 2018 - Present

Golden, CO

- Leading the Augmented Reality in Human-Robot Interaction student research team. Mentoring undergrad peers.
- Researching **adaptive human-machine teaming** by building **Mixed Reality interfaces** and nowcasting real-time fNIRS **cognitive data** (ConvLSTM) in collaboration with Dr. Leanne Hirshfield at CU Institute of Cognitive Science.
- Invited twice to AAAI (2019, 2018) conferences to **lead educational outreach workshop**.

### Colorado School of Mines, Computer Science

Undergraduate Research Fellow (Advised by Dr. Tom Williams)

Aug. 2017 - May 2018

Golden, Colorado

- Researched and contributed to the lab's distributed Robotic Architecture's components (referring expression generation, pragmatics, and computer vision) to facilitate natural human-robot interaction.

## WORK EXPERIENCE

### Facebook

Incoming Engineering Intern

May 2019 - Aug. 2019

Seattle, WA

- Develop infrastructure tools for Facebook's production environment used by 2+ billions users.

### NASA-Caltech Jet Propulsion Laboratory

Software Engineer Intern

July 2018 - Aug. 2018

Pasadena, CA

- Researched and resolved bottlenecks in Mars 2020 Sampling & Caching Subsystem's precision cleaning process.
- Reduced **50% lead time** by designing assembly tracking system and tools to optimize operations workflows.

### Google (Nest Labs - Smart Home Automation Division)

Software Engineering Intern

May 2017 - Aug. 2017

Palo Alto, CA

- Reduced **man-hours by 90%** by developing the **Robot Operating System (ROS)** packages, localization system (LIDAR), and graphical user interface for testing internal robot sensors.

## TEACHING EXPERIENCE AND LEADERSHIP

### Graduate Student Instructor · Colorado School of Mines

Aug. 2018 - Present

- Teaching and redesigning Intro to Computer Science (Spring 2019, Fall 2018) for 350 students.
- Demonstrating abstract theories and inspiring in undergraduates a love of Computer Science.

### Robotics Club President & Project Manager · University Robotics Team

Aug. 2014 - Dec. 2017

- Led 50 engineering students in 6 robotic competitions. **Grew club members from 8 to 71.**
- Sparked 100 local kids interests in STEM by facilitating triannual outreach activities. Raised \$6000.

## SELECTED PROJECTS

### Robotics Engineer · Wall-E Inspired Robot capable of VR Teleoperation

- Self-learned Tensorflow and NVIDIA Jetson TX2 to build a robot that understood ASL. [trannhan.com/walle](https://trannhan.com/walle)

### Lead Developer · Personalize Toothbrush with Google Assistant

- US Grand prizes & **Top 10/129** in Google's Young Makers final competition in Beijing. [trannhan.com/googleBrush](https://trannhan.com/googleBrush)

### AR Developer · Sculpt Trace - Teaching Arts in Mixed-Reality @ MIT Media Lab

- Co-developed an interactive Microsoft HoloLens app to teach sculpting. [trannhan.com/sculpt-trace/](https://trannhan.com/sculpt-trace/)