

# Thao Phung

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## EDUCATION

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**University of Wyoming**, Laramie, WY

*Aug 2013 - Dec 2018*

B.S. in Computer Science

**Online Degrees, Udacity**

Bertelsmann Data Science Challenge Scholarship

*May 2018 - Aug 2018*

Front-End Web Developer Nanodegree

*Apr 2018 - Oct 2018*

Grow with Google Challenge Scholarship Front-End Web Development

*Jan 2018 - Apr 2018*

Intro to Self-Driving Cars Nanodegree

*Oct 2017 - Jan 2018*

Deep Learning Foundation Nanodegree

*Feb - Sept 2017*

Machine Learning Nanodegree

*Aug 2016 - Jul 2017*

## RESEARCH AND PROJECTS

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**American sign language (ASL) recognition using deep neural networks**

*May 2018*

*Oral presented at Wyoming Undergraduate Research Day*

- Hand-designed a training set of over 2860 videos for ASL alphabet including motion letters.
- Trained convolutional neural networks (CNNs) and recurrent neural networks (RNNs) using Python to recognize ASL hand gestures performed by different people in different lighting conditions.
- On a small, hand-generated training set, obtained 9.7% accuracy on test set, improving over the 3% accuracy obtained by random guessing.

**Learning to solve symbolic math from visual inputs**

*May 2017*

*Poster presented at CVPR 2017 and NIPS 2017 workshops*

- Trained CNNs to do addition and subtraction given visual inputs of handwritten equations.
- Obtained 98% test set accuracy on new handwriting styles of previously seen equations and 15% accuracy on entirely new equations.

**Investigation on the use of perception manipulation to enhance virtual reality training** *Oct 2016*

*Poster presented at Rocky Mountain Celebration of Women in Computing (RMCWiC) 2016*

- Researched action-specific perception: how a person's perception of the environment changes in conjunction with their ability to act in it.
- Designed Oculus-driven golf putting simulation in Unity.

## WORK EXPERIENCES

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**Research Assistant**

*Evolving AI Lab, University of Wyoming*

*Dec 2016 - Dec 2018*

*3DiA Lab, University of Wyoming*

*Apr 2015 - Dec 2016*

- Collaborated with a diverse group of graduate students on several research projects, resulting in two presentations at major conferences.

**Library Technical Assistant**

*Oct 2016 - Dec 2018*

*Coe Library, University of Wyoming*

- Learned how to professionally handle and prepare fragile fossil specimens for 3D digitization by scanning using HP 3D Scan with structured light scanning technology and Clearform's Portable 3D Scanner.
- Processed more than 250 digital objects in different formats to be delivered via web; also used for 3D display integration with mobile devices.

## TECHNICAL SKILLS

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- Extensive experience developing machine learning applications in Python using sikit-learn and Keras libraries.
- Fluent in developing solutions to classification problems via regression, clustering, and deep learning in Python.
- Familiar with using Caffe and Tensorflow frameworks to perform research in artificial intelligence.
- **Languages and Software:** Python, C++, Java, C#, HTML, CSS, Microsoft Office, Adobe Photoshop
- **Statistical Methods:** regression models, dimensionality reduction, Bayesian statistics

## COURSE WORKS

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- Machine Learning
- Artificial Intelligence
- Data Mining
- Linear Algebra

## GRANTS AND FELLOWSHIPS

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- Women in Machine Learning at NIPs travel award: \$300 *Dec 2017*
- Women in Computer Vision at CVPR travel award: \$900 *Jul 2017*
- Wyoming Research Scholar Program grant: \$500 *Jul 2017*
- EPSCoR Research Fellowship: \$1,600 *Oct 2015 - May 2016*

## AWARDS AND SCHOLARSHIPS

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- Bertelsmann Data Science Challenge Scholarship *May 2018 - Aug 2018*
- Grow with Google Front-End Web Developer Nanodegree scholarship *Apr 2018 - Oct 2018*
- Grow with Google Challenge Scholarship: Front-End Web Dev *Jan 2018 - Apr 2018*
- Lyft Intro to Self-Driving Cars Scholarship: \$800 *Oct 2017 - Jan 2018*
- 3rd Best Poster Presentation at RMCWiC *Sept 2016*
- International Student Scholarship: \$1,000 *Aug 2014 - May 2015*
- Rocky Mountain Scholars Award: \$22,000 *Aug 2013 - May 2017*

## PRESENTATIONS

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### Poster Presentations

- **Women in Machine Learning (WiML) in conjunction with NIPs** *Dec 2017*  
Learning to solve symbolic math from visual inputs *Long Beach, CA*
- **Women in Computer Vision (WiCV) in conjunction with CVPR** *Jul 2017*  
Learning to solve symbolic math from visual inputs *Honolulu, HI*
- **Rocky Mountain Celebration of Women in Computing (RMCWiC)** *Sept 2016*  
Investigation on the use of perception manipulation to enhance virtual reality training *Salt Lake City, UT*

### Oral Presentation

- **Research Day, University of Wyoming** *Apr 2018*  
American Sign Language Recognition with Microsoft HoloLens *Laramie, WY*
- **Research Day, University of Wyoming** *May 2016*  
Investigation on the use of perception manipulation to enhance virtual reality training *Laramie, WY*

## SERVICES AND ACTIVITIES

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### Reviewing

- Workshop papers: WiML2017

## LANGUAGES

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|------------|----------------|
| Vietnamese | Native speaker |
| English    | Proficient     |