

# Peratham Wiriyathammabhum

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## CONTACT INFORMATION

1/171-172 Silom Grand Terrace  
Saladaeng Soi 2, Silom  
Bangrak District  
Bangkok, Thailand, 10500

Mobile: +668-9993-3315  
E-mail: peratham.bkk@gmail.com  
WWW(resume): [<https://perathambkk.github.io/>]

## RESEARCH INTERESTS

Computer Vision and Natural Language Processing (Vision and Language) with Deep Learning.  
Keywords: *Video Analysis, Multi-modal Grounding.*

## EDUCATION

**University of Maryland**, College Park, USA

*Department of Computer Science*

M.S. in Computer Science, GPA 3.68

**August 2013 - December 2015**

- Scholarly Paper: “Computer Vision and Natural Language Processing: Recent Approaches in Multimedia and Robotics” published at ACM CSUR (IF: 6.748).

**Chulalongkorn University**, Phyathai, Bangkok, Thailand

*Department of Computer Engineering*

M.Eng. (Very Good Thesis), GPA 4.00.

**May 2009 - May 2010**

- Thesis Topic: “An approach to Basis Selection for Dimensional Reduction techniques.” [pdf]
- Faculty of Engineering scholarship
- I am the only one in my class year who graduated within 1 year instead of normally 2 years.

**Chulalongkorn University**, Phyathai, Bangkok, Thailand

*Department of Computer Engineering*

B.Eng. (Second-class Honors), GPA 3.44.

**June 2005 - April 2009**

- Senior Project Topic: “Techniques for Dimensionality Reduction.”
- Consolation Prize, Computer Engineering Project Presentation by Exxon Mobil Corporation.
- GPA in major courses: 3.63, GPA in year 3 and 4: 3.74

## INTERNSHIPS

**US Army Research Lab**, Adelphi, MD, USA

*Summer Research Internship/Summer Journeyman Fellowship*

**May 2016 - August 2016**

Mentor: Dr. Douglas Summers-Stay

**Settrade.com Co.,Ltd, Subsidiary of Stock Exchange of Thailand (SET)**, Thailand

*Software Developer Internship*

**March 2008 - May 2008**

## SELECTED PUBLICATIONS

**Peratham Wiriyathammabhum:** PromptShots at the FinNLP-2022 ERAI Tasks: Pairwise Comparison and Unsupervised Ranking. In Proceedings of the 4th Workshop on Financial Technology and Natural Language Processing (FinNLP)@EMNLP’22, ACL, 2022. (1<sup>st</sup> place in maximal potential profit (MPP) unsupervised ranking, 3<sup>rd</sup> place in maximal loss (ML) pairwise comparison)

Vanni Zavarella, Hristo Tanev, Ali Hürriyetoğlu, **Peratham Wiriyathammabhum**, Bertrand De Longueville: Tracking COVID-19 protest events in the United States. Shared Task 2: Event Database Replication, CASE 2022. In Proceedings of the 5th Workshop on Challenges and Applications of Automated Extraction of Socio-political Events from Text (CASE)@EMNLP’22, ACL, 2022.

**Peratham Wiriyathammabhum:** TTCB System description to a shared task on implicit and underspecified language 2021. In Proceedings of the First Workshop on Understanding Implicit and

Underspecified Language@ACL'21, ACL, 2021. (1<sup>st</sup> place)

**Peratham Wiriyathammabhum**, Abhinav Shrivastava, Vlad I. Morariu and Larry S. Davis: Referring to Objects in Videos using Spatio-Temporal Identifying Descriptions, In Proceedings of the NAACL Workshop on Shortcomings in Vision and Language (SiVL@NAACL'19), ACL, 2019. Oral. (also presented at Computer Vision for Animal Behavior Tracking and Modeling (CV4Animals Workshop @ CVPR'21.)

**Peratham Wiriyathammabhum**, Douglas Summers-Stay, Cornelia Fermüller, and Yiannis Aloimonos. 2016. Computer Vision and Natural Language Processing: Recent Approaches in Multi-media and Robotics. ACM Computing Survey 49, 4, Article 71 (December 2016), 44 pages. (2016 Impact Factor: 6.748)

Bryan Ball, Mark Flood, H. V. Jagadish, Joseph Langsam, Louiqa Raschid, **Peratham Wiriyathammabhum**: A Flexible and Extensible Contract Aggregation Framework (CAF) for Financial Data Stream Analytics, ACM SIGMOD Conference, special workshop on Data Science for Macro-Modeling (DSMM'2014), 2014. [pdf]

**Peratham Wiriyathammabhum**, Boonserm Kijsirikul: Basis Selection for 2DLDA-Based Face Recognition Using Fisher Score, 16<sup>th</sup> International Conference on Neural Information Processing (ICONIP'09), Vol.1 pp.708-715, 2009. [pdf]

PROFESSIONAL SERVICES

Reviewer for:

- Image and Vision Computing (Elsevier IMAVIS) 2014, 2015, 2016, 2017
- Computer Vision and Image Understanding (Elsevier CVIU) 2014, 2016, 2017
- International Journal for Light and Electron Optics (IJLEO) 2020
- The Visual Computer (Elsevier TVCJ) 2016
- ACM Computing Surveys (ACM CSUR) 2013
- AAAI Conference on Artificial Intelligence (AAAI) 2016
- LatinX in CV (LXCV) Research at CVPR 2021-2025

HONORS AND AWARDS

Dean's Fellowship @ UMD 2013, 2014.

Monbukagakusho scholarship: MEXT, Japanese Government scholarship @ TokyoTech 2010-2011.

PROFESSIONAL EXPERIENCES

**Computational Linguistics and Information Processing (CLIP) Lab, University of Maryland, College Park, USA**

*Visiting Scholar*

**Jan 2013 - June 2013**

Advisor: Prof. Dr. William Rand and Prof. Dr. Louiqa Raschid

**University Office of Information Technology (IT Chula), Chulalongkorn University, Thailand**

*Java & J2EE Instructor*

**Jan 2012 - June 2012**

Project: Database Migration (Oracle to MySQL) and Banner Manager for Ads Display.

COMPUTER SKILLS

- Languages: Python, MATLAB, Java, L<sup>A</sup>T<sub>E</sub>X, C/C++
- Web Programming: Django, JavaScript, JSP, ReactJS, TypeScript, Redux, Firebase
- Platforms: Unix/Linux, Windows
- Data Science Libraries: PyTorch, TensorFlow, Keras, Pandas, Seaborn, Boto3, etc.
- Libraries: Hibernate, Struts, Spring, ServLet, Armadillo, etc.

LANGUAGE SKILLS

- Thai: Native, English: Working Level, Japanese: Basic Intermediate (JLPT Level3/N4)