Puntawat Ponglertnapakorn

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Education

Aug 2019 - Present	**PhD Candidate in Information Science and Technology**
	Advisor: Professor Supasorn Suwajanakorn
	Location: Vidyasirimedhi Institute of Science and Technology (VISTEC), Rayong, Thailand
Aug 2014 - May 2018	**BSc in Computer Engineering (Second Class Honors)**
	Advisor: Professor Nikom Suvonvorn
	Location: Prince of Songkhla University, Songkhla, Thailand

Experience

Nov 2018 - Jul 2019 **Research Assistant at Brain Lab**
Advisor: Professor Theerawit Wilaiprasitporn
Location: Vidyasirimedhi Institute of Science and Technology, Rayong, Thailand
- ❖ Worked in the Sleep and MUSEC team
- ❖ Collected human biosignal data (e.g., ECG, EEG, and PPG).
- ❖ Developed a post-calibration algorithm to improve heart rate estimation on consumer-grade wrist-worn devices.
- ❖ Assisted in designing experiments and acquiring data for the MUSEC project

Aug 2016 - Nov 2016 **Undergraduate Student Internship at NETPIE**
Location: National Electronics and Computer Technology Center (NECTEC), Pathum Thani, Thailand
- ❖ Developed a checksum algorithm and optimized memory usage in the Microgear library for ESP8266.
- ❖ Workshop instructor at EGAT and NECTEC.

Research Interest

Broad interests: Computer Vision, Machine Learning, Deep Learning, Generative Modeling
Specific interests: Human Motion Generation for Football Players, Computer Vision for Sports Virtual Replay and Reconstruction, Face Relighting

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Publications

1. **Where Is The Ball: 3D Ball Trajectory Estimation From 2D Monocular Tracking**
   11th CVSPORTS at CVPR 2025 · **Project Page** · **Paper**
   "An approach for 3D ball trajectory estimation from a 2D tracking sequence that generalizes to real-world trajectories, despite being trained solely on simulation."
   P. Ponglertnapakorn, S. Suwajanakorn
   With support and collaboration from Dr.Konstantinos Rematas

2. **DiFaReli++: Diffusion Face Relighting with Consistent Cast Shadows**
   Arxiv preprint 2025 · **Project Page** · **Paper**
   "An extension to DiFaReli that improves cast shadows by enabling removal or alteration of hard cast shadows with temporal consistency, and achieves faster relighting in a single network pass."
   P. Ponglertnapakorn, N. Tritrong, S. Suwajanakorn.

3. **DiFaReli: Diffusion Face Relighting**
   ICCV 2023 · **Project Page** · **Paper**
   "A novel approach to single-view face relighting in the wild leveraging a conditional diffusion implicit model (DDIM) without any need for light stage data, multi-view images, or lighting ground truth."
   P. Ponglertnapakorn, N. Tritrong, S. Suwajanakorn.

4. **Revealing Preference in Popular Music Through Familiarity and Brain Response**
   IEEE Sensor Journal 2021 · **Dataset** · **Paper**
   "A music preference study, factorized by familiarity score and brain responses (EEG) while listening to music with and without lyrics.**"**
   S. Sangnark**,** P. Autthasan, **P. Ponglertnapakorn**, Phudit Chalekarn, T. Sudhawiyangkul, M. Trakulruangroj, S. Songsermsawad, R. Assabumrungrat, S. Amplod, K. Ounjai, T. Wilaiprasitporn

5. **Improving Heart Rate Estimation on Consumer Grade Wrist-Worn Device Using Post-Calibration Approach, IEEE Sensor Journal 2020** · **Paper**
   "A method to improve heart rate estimation from various consumer-grade wrist-worn devices toward medical-grade accuracy.**"**
   T. Choksatchawathi, **P. Ponglertnapakorn**, A. Ditthapron, P. Leelaarporn, T. Wisutthisen, T. Wilaiprasitporn

Awards and Scholarships

1. Ph.D. fully-funded scholarship issued by Siam Commercial Bank Public Company Limited (SCB) and PTT Public Company Limited. (2019)
2. First place in Thailand Southern Programming Contest (2016)