**Ji Hyun Nam**
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## Education

- **University of Wisconsin Madison** — Madison, WI, USA
  *Doctor of Philosophy (Ph.D) in Electrical and Computer Engineering ; GPA: 3.88/4.00* — *Aug. 2016 – May 2021*
- **Bauman Moscow State Technical University** — Moscow, Russia
  *Master of Laser Engineering and Technologies; GPA: 4.00/4.00* — *Sep. 2014 – June 2016*
- **Bauman Moscow State Technical University** — Moscow, Russia
  *Bachelor of Engineering; GPA: 3.97/4.00* — *Sep. 2010 – June 2014*

## Experience

- **Center for Army Analysis and Simulations(CAAS), ROKA Headquaters** — South Korea
  *Big Data & AI Research Scientist* — *July 2021 - Now*
- **University of Wisconsin Madison** — Madison, WI
  *Research Assistant(RA) at Computational Optics Group* — *Sep. 2016 - May 2021*
- **LandScan** — Fresno, CA
  *Research intern (Applications of time-of-flight cameras, SPAD)* — *June 2020 - Sep. 2020*
- **University of Wisconsin Madison** — Madison, WI
  *Teaching Assistant(TA) ECE 431 - Digital Signal Processing* — *Fall 2018 and Fall 2020*
- **Bauman Moscow State Technical University** — Moscow, Russia
  *Research Assistant (Bio-metric systems for human identification using deep learning)* — *Sep. 2014 - May 2015*
- **Optical System Laboratory** — Moscow, Russia
  *Research Assistant (Interferometer system)* — *Sep 2013 - May 2014*
- **Photonics Laboratory** — Moscow, Russia
  *Research Assistant (lasers and cooling systems)* — *Jan. 2013 - May 2013*

## Publications

[P10] **J.H. Nam**, E. Brandt, S. Bauer, X. Liu, M. Renna, A. Tosi, E. Sifakis, A. Velten, "Low-latency Real-time time-of-flight non-line-of-sight imaging at 5 frames per second," in Nature Communications, 2021

[P9] J. Marco, A. Jarabo, **J.H. Nam**, X. Liu, M.Á. Cosculluela, A. Velten, D. Gutierrez, "Virtual light transport matrices for non-line-of-sight imaging," in Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV), 2021

[P8] J. Peng, F. Mu, **J.H. Nam** S. Raghavan, Y. Li, A. Velten, Z. Xiong, "Towards Non-Line-of-Sight Photography", (under review)

[P7] M. Renna, **J.H. Nam**, M. Buttafava, F. Villa, A. Velten, A. Tosi, "Fast-Gated 16× 1 SPAD Array for Non-Line-of-Sight Imaging Applications," in Instruments 4.2 (2020): 14.

[P6] M.L. Manna, **J.H. Nam**, S.A. Reza, A. Velten, "Non-line-of-sight-imaging using dynamic relay surfaces," in Optics express 28.4 (2020): 5331-5339.

[P5] **J.H. Nam**, and A. Velten, "Super-resolution remote imaging using time encoded remote apertures," in Applied Sciences 10.18 (2020): 6458.

[P4] X. Liu, I. Guillén, M.L. Manna, **J.H. Nam**, S.A. Reza, T.H. Le, A. Jarabo, D. Gutierrez, A. Velten, "Non-line-of-sight imaging using phasor-field virtual wave optics," in Nature 572.7771 (2019): 620-623.

[P3] M.L. Manna, X. Liu, **J.H. Nam**, M. Laurenzis, A. Velten, "A line-of-sight approach for non-line-of-sight imaging (conference presentation)," in Computational Imaging IV. Vol. 10990. International Society for Optics and Photonics, 2019.

[P2] M. Laurenzis, M.L. Manna, M. Buttafava, A. Tosi, **J.H. Nam**, M. Gupta, A. Velten, "Advanced active imaging with single photon avalanche diodes," in Emerging Imaging and Sensing Technologies for Security and Defence III; and Unmanned Sensors, Systems, and Countermeasures. Vol. 10799. International Society for Optics and Photonics, 2018.

[P1] A. Velten, M. L. Manna, **J.H. Nam**, X. Liu, "Non-line-of-sight 3D imaging (Conference Presentation)," in Three-Dimensional Imaging, Visualization, and Display, 2018

## Professional Activities

- **Paper Reviewer**:
  - Nature Publishing Group — Light: Science and Applications
  - IEEE — Transactions on Computational Imaging
  - Optica Publishing Group — Optics Express

- **DARPA: "REVEAL" Program Review** — Pittsburgh, PA
  *Prototype NLOS imaging system demonstration* — *Fall 2019*
- **AirForce Remote Sensing Program Review** — Washington D.C.
  *Research presenter — Super-resolution imaging using time-resolved measurements* — *Fall 2017*

## Programming Skills

- **Languages**: Matlab, Python, PyTorch, C++, Latex
- **Softwares**: AutoCAD, MathCAD, Zemax, Solidworks, Micro-Cap, Blender
- **Tools**: Google Cloud Platform, Colab, Github, Bitbucket

## Languages

- **English**: Fluent
- **Russian**: Fluent
- **Korean**: Native

## Mentorship

- **Sabhatina Palani Selvam**: Master student, 2019-2020
- **Daniel Jonathan Noah**: Undergraduate student, 2017