Ji Hyun Nam
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Education

- **University of Wisconsin Madison** — Madison, WI, USA
  Ph.D., Electrical and Computer Engineering; GPA: 3.88/4.00 — *Aug 2016 – May 2021*
- **Bauman Moscow State Technical University** — Moscow, Russia
  M.S., Laser Engineering and Technologies; Diploma with honors, GPA: 4.00/4.00 — *Sep 2014 – June 2016*
- **Bauman Moscow State Technical University** — Moscow, Russia
  B.E., Optical Engineering; Diploma with honors, 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 – Current*
- **University of Wisconsin Madison** — Madison, WI
  Research Assistant(RA) at Computational Optics Group — *Sep 2016 – May 2021*
- **LandScan** — Fresno, CA
  Research intern (Non-Line-of-Sight imaging applications for drone-based imaging systems) — *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 (Deep learning-based bio-metric systems for human identification) — *Sep 2014 – May 2015*
- **Optical System Laboratory** — Moscow, Russia
  Research Assistant (Interferometer systems) — *Sep 2013 – May 2014*
- **Photonics Laboratory** — Moscow, Russia
  Research Assistant (Lasers and cooling systems) — *Jan 2013 – May 2013*

Publications

[P11] F. Mu, S. Mo, J. Peng, X. Liu, **J.H. Nam**, S Raghavan, A. Velten, Y. Li, "Physics to the Rescue: Deep Non-line-of-sight Reconstruction for High-speed Imaging", Arxiv, 2022

[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", Arxiv, 2021

[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*

Awards and Honors

- Army Chief of Staff citation for achieving 1st place in Korea Army Startup Competition, May 2022
- Diploma with honors(Red Diploma), Master's degree, June 2016
- Diploma with honors(Red Diploma), Bachelor's degree, June 2014
- 2nd prize in Electrical Circuit Olympiad at Bauman Moscow State Technical University, 2012

Programming Skills

- **Languages**: Matlab, Python, PyTorch, C++, Latex
- **Softwares**: AutoCAD, MathCAD, Zemax, Solidworks, 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