

Anthony Baietto

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Education

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| Ph.D. in Computer Science and Engineering
<i>The Ohio State University</i> | Jan 2020 – Dec 2024
Columbus, OH |
| <ul style="list-style-type: none">• Thesis: Data-Aware Tuning of Deep Learning Models | |
| M.S. in Computer Science and Engineering
<i>The Ohio State University</i> | May 2024
Columbus, OH |
| B.S. in Computer Science and Engineering
<i>The Ohio State University</i> | Aug 2017 – May 2020
Columbus, OH |
| <ul style="list-style-type: none">• Accepted to BS/MS program (2020)• Maximus Scholarship (2017, 2018, 2019)• National Buckeye Scholar (2017, 2018, 2019)• Dean's List (2017, 2018, 2019) | |

Experience

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| Artificial Intelligence Software Developer
<i>Applied Research Solutions</i> | Jan 2020 – Present
Beavercreek, OH |
| <ul style="list-style-type: none">• Collaborated with Air Force Research Laboratory on radar waveform design (AutoWav project)• Developed novel neural network solution for interference mitigation resulting in over 2000x speedup | |
| Graduate Teaching Assistant
<i>The Ohio State University</i> | AU21, SP22, AU23, SP24, AU24
Columbus, OH |
| <ul style="list-style-type: none">• Taught operating systems with responsibilities including lecturing and preparing assignments/exams• Mean student evaluation score: 4.47 / 5.00 (department average: 4.26)• Winner of Elanor Quinlan Graduate Teaching Award (2023) | |
| Graduate Research Assistant
<i>The Ohio State University</i> | Aug 2020 – Dec 2024
Columbus, OH |
| <ul style="list-style-type: none">• Developed innovative AI dataset augmentation techniques for neuromorphic computation• Introduced neuromorphic computing obstacle along with generative AI mitigation | |
| Undergraduate Research Assistant
<i>ReRout Lab</i> | Aug 2019 – Dec 2019
Columbus, OH |
| <ul style="list-style-type: none">• Constructed demonstration of SoftwarePilot, a fully autonomous aerial system | |
| IT Intern
<i>CPTechnologies Company</i> | May 2019 – Aug 2019
Blacklick, OH |
| <ul style="list-style-type: none">• Developed and maintained real-time production management software with database support• Networked and debugged 40+ kiosks and remote terminals• Provided technical assistance for 30+ employees | |

Participant

HackOHIO

Oct 2017
Columbus, OH

- Led team of 4 undergraduates in 24 hour hackathon
- Developed Android application for automated calendar event creation from emails
- Winner of 24 hour Rockwell Automation “Automation Challenge”

Undergraduate Teaching Assistant

The Ohio State University

SP19, AU19
Columbus, OH

- Held office hours to assist students master course concepts
- Developed automated Kahoot! assignment grading tool

Skills

Programming Languages: Python, C, C++, Bash, MATLAB, Java, JavaScript

Tools & Frameworks: TensorFlow, PyTorch, Scikit-Learn, Microsoft Office, L^AT_EX

Publications & Presentations

- **Baietto, A.**; Stewart, C.; Bihl, T.J. Dataset Assembly for Training Spiking Neural Networks. *Neurocomputing* 2025, 622, 129207. <https://doi.org/10.1016/j.neucom.2024.129207>
- **A. Baietto** and T. Bihl, “Generative Data for Neuromorphic Computing,” 2025 Hawaii International Conference on System Sciences (HICSS), Big Island, HI, USA, 2025, pp. 7246-7255, <https://hdl.handle.net/10125/109719>
- **A. Baietto**, C. Stewart and T. Bihl, “Dataset Augmentation for Robust Spiking Neural Networks,” 2023 IEEE International Conference on Autonomic Computing and Self-Organizing Systems Companion (ACSOS-C), Toronto, ON, Canada, 2023 pp. 116-121. doi: 10.1109/ACSOS-C58168.2023.00050
- Poster Presentation, “Toward Robust Spiking Neural Networks”, International Conference on Neuromorphic Systems (ICONS) (2023)
- **A. Baietto**, J. Boubin, P. Farr and T. J. Bihl, “Lean Neural Networks for Real-time Embedded Spectral Notching Waveform Design,” 2022 IEEE 31st International Symposium on Industrial Electronics (ISIE), Anchorage, AK, USA, 2022, pp. 1121-1126, doi: 10.1109/ISIE51582.2022.9831772.
- **Baietto, A.**; Boubin, J.; Farr, P.; Bihl, T.J.; Jones, A.M.; Stewart, C. Lean Neural Networks for Autonomous Radar Waveform Design. *Sensors* 2022, 22, 1317. <https://doi.org/10.3390/s22041317>

Patents

- **U.S. Patent Application No. 63/718,921** “SYSTEMS AND METHODS FOR TRAINING NEURAL NETWORKS,” filed November 11, 2024. Patent pending.
- **U.S. Patent Application No. 18/418,576** “METHOD OF ANALYZING AND CORRECTING A DYNAMIC WAVEFORM USING MULTIVARIATE ERROR LOSS FUNCTIONS,” filed January 22, 2024. Patent pending.
- **U.S. Patent Application No. 18/418,585** “METHOD OF ANALYZING AND CORRECTING A COMPLEX WAVEFORM BY REAL AND IMAGINARY PARTITIONING AND RECOMBINATION,” filed January 22, 2024. Patent pending.