For Prospective Candidates Interested in Joining the AIMP-Lab

For prospective candidates (Postdoctoral Fellows, PhD Students, Visiting Scholars/Students, Northwestern Master's Students, and Research Interns), *I appreciate reading the following before reaching out to me through email.*

*When sending the email, please use the email title template of "**ALOH - Your Name - Position Inquiring**". Otherwise, likely, you will not hear back from me.*

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1. Why Our Lab & Why Northwestern

The Advanced AI in Medicine & Physics Laboratory (AIMP-Lab) at Northwestern University is an interdisciplinary research group working at the intersection of artificial intelligence, medical imaging, biomedical physics, and clinical translation. Our research focused on how to use AI to improve healthcare in general by working closely with radiologists, cardiologists, nuclear medicine physicians, oncologists, biomedical engineers, computer scientists, and basic scientists across Northwestern University and Northwestern Medicine. Our work is routinely published in top-tier venues.

Northwestern University and the Feinberg School of Medicine provide a world-class research environment. Consistently recognized by U.S. News & World Report, **Northwestern University ranks as a top 10 university**, and **Northwestern Memorial Hospital**, an Honor Roll recipient, holds **top 10 national rankings in eight adult specialties**, including Cardiology (No. 7), Neurology & Neurosurgery (No. 6), Pulmonology & Lung Surgery (No. 7), Obstetrics & Gynecology (No. 6), and Urology (No. 10). The health system hosts state-of-the-art PET/MRI, PET/CT, SPECT/CT, MRI, and CT scanners, extensive imaging archives, and a strong translational infrastructure that supports data-driven biomedical innovation.

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2. For Northwestern Master's Students

I supervise master's students through Northwestern's **Biomedical Engineering (BME)**, **Electrical and Computer Engineering (ECE),** and **Computer Engineering (CE)** programs. I only accept **thesis-based** MS students, with a maximum of **two** new MS trainees per year. MS students demonstrating exceptional performance may be considered for internal transition to a PhD program, contingent on funding availability and meeting admission standards. Current Northwestern MS students are welcome to contact me directly regarding research opportunities.

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3. For Prospective Visiting Students and Visiting Scholars

The AIMP-Lab welcomes visiting students and scholars, including *visiting PhD students, research-oriented master's or undergraduate students, clinical fellows, and physicians* interested in AI and medical imaging. Visitors must secure fellowship or scholarship support from their home institution or an external funding agency. A typical minimum stay is **six months**, and candidates should have a solid background in imaging, computer vision, biomedical engineering, or deep learning.

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4. For Prospective PhD Students

I supervise PhD students through the **Health Sciences Integrated PhD Program (HSIP)**, the **Driskill Graduate Program in Life Sciences (DGP),** and the **Biomedical Engineering (BME)**. Admission to these programs is entirely committee-based, meaning I cannot directly admit students. I am happy to discuss lab placement **only after** you have received admission into one of these programs.

The minimal standard for joining the AIMP-Lab is equivalent to that of graduating from the AIMP Research Internship Program. In practice, this means incoming PhD students should have prior research training and **at least one high-impact journal publication**. Conference papers (e.g., MICCAI, IPMI, CVPR, ICCV, WACV) may or may not count depending on scientific rigor and contribution. Students who have gained equivalent experience in another research setting do not need to participate in the AIMP Intern Program, but the requirements are the same.

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5. For Prospective Postdoctoral Fellows

At this time, the AIMP-Lab does not have internal funding to support postdoctoral researchers.

However, candidates who bring their own fellowship support (e.g., NIH F32, NRSA, independent international fellowships, or national scholarships) are welcome to reach out to discuss potential alignment of interests and possible supervision.

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6. For Prospective Research Interns (Undergraduate or Master's Students Only)

The **AIMP Research Internship** provides a rigorous, immersive research experience designed to prepare students for competitive PhD, MD/PhD, and advanced engineering programs. Eligible applicants include **undergraduate seniors, post-baccalaureate students, final-year master's students, and post-master's trainees**. Applicants must have completed coursework in medical imaging fundamentals, computer vision, deep learning, and image processing, and must have a minimum GPA of 3.0. The expected commitment is at least eight months with a minimum of 25 hours per week; both remote and on-site participation are acceptable.

Prior research experience is evaluated with emphasis on **focus, follow-through, and completion**. Ideally, undergraduate applicants should have **one- and only one- prior research experience**, while master's students from outside Northwestern should have **one to two prior research experiences (no more than two)**. Projects that remain unfinished (*including manuscripts still under review or in major revision*) are considered lower priority. We look for candidates who have demonstrated the ability to complete a research project from start to finish. **Research interns may not work in multiple labs simultaneously**. The internship is typically unpaid; however, compensation may be possible when a funded project is available, and the candidate's profile aligns well with project needs.

Interns are expected to carry out a full-cycle research project: defining a problem, conducting a literature review, designing models, processing data, performing analysis, and contributing to manuscript writing and revision. I work closely with each intern and often co-supervise projects with MD faculty at Northwestern. We typically accept two to three interns per year, and many past trainees have successfully entered top PhD programs.

Bonus: Perfect Location of AIMP-Lab!

Our lab is located directly on the **Magnificent Mile in Streeterville**, one of the most vibrant areas in downtown Chicago. Within minutes, you can walk to Navy Pier (*complete with summer fireworks every Wednesday and Saturday*), Lake Michigan beaches, the Chicago Riverwalk, Millennium Park, and world-class museums. The annual Chicago Air & Water Show can be enjoyed from the nearby lakeshore. The area also features outstanding dining and cultural attractions, and if you are a Harry Potter fan (or a caffeine enthusiast), the world's largest Starbucks Reserve Roastery sits only a few blocks away. You name it! Streeterville has it.

Chicago Campus

AIMP-Lab

View from Evanston Campus