

Computer Vision Research Assistant

AnnotateDx is a data annotation co-pilot designed to eliminate the manual labeling bottleneck in biomedical AI development by scaling expert-level workflow efficiency. Led by a Purdue Innovates Commercialization Fellow, this is a fast-paced, translational project focused on scaling our co-pilot from academic research into active deployment with early clinical partners.

We are seeking a Graduate Research Assistant to engineer and validate human-in-the-loop computer vision algorithms for high-resolution histology datasets. Past industry experience in computer vision, machine learning, or software engineering is highly desired.

Position Type: 0.50 FTE (20 hours/week) available from July 1 to October 30 graduate assistantship with a competitive stipend, fee remission, and health insurance.

What You'll Do:

You will work directly with the product lead to drive the technical development of the platform. Core responsibilities include:

- **Algorithm Development:** Designing and implementing programmatic computer vision algorithms for histology images.
- **Algorithm Benchmarking:** Evaluating state-of-the-art deep learning architectures against out-of-distribution datasets to quantify localization accuracy and efficiency gains.
- **Algorithm Deployment:** Translating research scripts into secure, production-ready, and containerized software applications.
- **Partner Integration:** Supporting live, pilot validation sessions with external partners.

What We Are Looking For:

- A **strong technical background in computer vision** (CNNs, Object Detection, Foundation Models), machine learning fundamentals, and algorithm design.
- Demonstrated **industry experience** combined with excellent software engineering practices.
- Advanced proficiency in PyTorch and OpenCV.
- Hands-on experience with Docker, Google Cloud Platform (GCP), and Slurm workload managers.
- A hands-on approach to data-centric AI, including a strong willingness to tackle data wrangling, baseline labeling, and persistent pipeline debugging.
- Meticulous attention to detail with rigorous testing and code validation habits.
- Clear, objective verbal and written communication skills.

To apply for this position, please apply via the Qualtrics link:

https://purdue.ca1.qualtrics.com/jfe/form/SV_4HgFexP83UCmMuO