



COMPANY

Tunoptix is a fast-growing startup focused on revolutionizing the way optical systems are conceptualized, designed, and manufactured using nanotechnology and semiconductor processing. We combine semiconductor-defined meta-optics with advanced, AI-based image processing and proprietary design techniques to enable next-generation cameras. Tunoptix products will expand possibilities in the fields of machine vision, consumer electronics, medical endoscopy, 3D imaging, and hyperspectral imaging.

Tunoptix is an emerging leader in meta-optics and computational imaging and was founded to commercialize disruptive meta-optical technologies developed in the research groups of professors Arka Majumdar and Karl Bohringer at the University of Washington. We have raised venture funding from IP Group as well as from major government funding organizations including DARPA and NASA. Tunoptix is also a member of the vibrant startup community at the University of Washington CoMotion Fluke Labs incubator.

[Tunoptix Website](#)

POSITION – AI Consultant, Computer Vision (Part-time Consultant)

Reporting to the Director of System Design, the AI Consultant will collaborate with a talented team of engineers and scientists to advise and assist in the development of machine learning software for use in cutting edge computational imaging systems. This includes algorithms for various learned imaging tasks (e.g., OCR, image classification, detection, and segmentation). This is an exciting opportunity for a highly motivated and capable engineer to help shape next-generation imaging systems for industrial machine vision, medical instrumentation, automobiles, robotics, and consumer electronics.

LOCATION: Seattle, WA

RESPONSIBILITIES

- Work closely with the Company's founders and technical team to advise and assist in the development, training, and validation of software for specific learned imaging tasks (e.g., character recognition, 3D vision, image classification, detection, and segmentation)
- Advise the technical team on AI/ML/Deep learning research and advances relevant to the Company's goals
- Provide analyses and trade studies of performance tradeoffs for different network architectures in terms of power consumption, latency, accuracy, and memory usage
- Consolidate and prepare reports detailing techniques and best practices for deploying the developed software, network pruning techniques, and training strategies

QUALIFICATIONS

- PhD in Computer Science, Electrical Engineering, or equivalent technical discipline with a focus on AI/ML/Deep Learning and Computer Vision
- 5+ years of experience in developing and training ML models for imaging tasks
- Well-versed in state-of-the-art CNN architectures and ML literature



- Extensive experience developing image processing algorithms using classical and convolutional neural network-based approaches
- Experience with network pruning techniques such as knowledge distillation
- Significant experience using Python and TensorFlow
- Understanding of information theory and signal/image processing fundamentals
- Familiarity with optics and imaging systems (e.g., lenses, diffractive optics, camera sensors)
- Strong interpersonal and technical communication skills
- Ability to bridge technology development with commercial demands
- Familiar with the startup or early-stage business environment
- Entrepreneurial spirit, with a hands-on, roll-up-the-sleeves mentality

COVID-19 PRECAUTIONS

- Remote interview process
- Personal protective equipment provided or required
- Social distancing guidelines in place
- Virtual meetings

EEO Statement

Tunoptix is proud to be an Equal Employment Opportunity and Affirmative Action employer. We do not discriminate based upon race, religion, color, national origin, gender (including pregnancy, childbirth, or related medical conditions), sexual orientation, gender identity, gender expression, age, status as a protected veteran, status as an individual with a disability, or other applicable legally protected characteristics.

APPLY

If you are interested in the role, please send your resume to John.Fijol@ipgroup-inc.com