

**Post-Doctoral Research Associate  
Signal and Image Processing Institute  
University of Southern California**

Several Postdoctoral Research Associate positions are available immediately for an exciting new government funded project with the goal of 3D coherent x-ray imaging of silicon integrated circuits at <10nm resolution. Successful candidates will work as part of an interdisciplinary multi-institution team (including USC, Northwestern University, Argonne National Labs and the Paul Scherrer Institute), with a focus on system modeling, simulation, image analysis and computational image reconstruction from sparsely-sampled data. The position will involve algorithm development and analysis, software implementations, evaluation on experimental data, and preparation of research articles.

Required Qualifications: PhD in Electrical Engineering, Statistics, Computer Science, or Physics. Programming experience, preferably including Matlab, Python, C++. Experience and publications in at least one of the following areas: diffractive optics, optical simulation, coherent diffraction imaging, phaseless imaging, ptychography, computational imaging, 3D tomographic image reconstruction, inverse problems, low-dimensional signal representations (sparsity, low-rank, etc.), and numerical optimization.

Successful applicants will join the Signal and Image Processing Institute in the Department of Electrical Engineering and work with a team of faculty including Richard Leahy, Anthony Levi, Justin Haldar and Mahdi Soltanolkotabi.

The University of Southern California strongly values diversity and is committed to equal opportunity in employment. Women and men, and members of all racial and ethnic groups, are encouraged to apply.

*Send applications to:*  
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*Professor and Director*  
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