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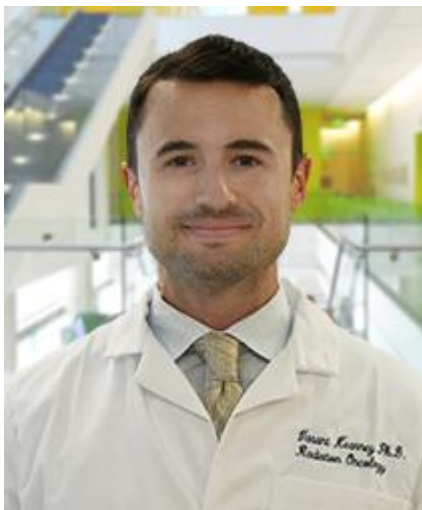
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## Vasant Kearney

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### Vasant Kearney, Ph.D.



**Assistant Professor**  
**Division of Physics**  
**Department of Radiation Oncology**

University of California, San Francisco  
Helen Diller Family Comprehensive Cancer Center  
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### Professional Focus

Dr. Kearney specializes in computer vision algorithmic development and has extensive knowledge in deep learning, treatment plan optimization, full stack design, and medical physics computational engines. Dr. Kearney also focuses on clinical workflow automation and has productionized many software applications aimed at streamlining clinical tasks.

### Education

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2008	University of California, Santa Cruz	BS	Physics
2012	SDSU with Thesis at UCSD	MS	Medical Physics

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2016	UT Southwestern and UT Arlington	PhD	Biomedical Engineering
2018	University of California, San Francisco	Residency	Radiation Oncology

## Professional Experience

2018-present	University of California, San Francisco	Assistant Professor	Department of Radiation Oncology
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## Awards & Honors

2012	Norm Baily Award, American Association of Physicist in Medicine, Southern California Chapter
2013	Kelcy L. Warren Award, Endowed engineering scholarship
2014	GAANN engineering fellowship, Faculty Nominated Biomedical Engineering Fellowship
2015	GAANN engineering fellowship, Faculty Nominated Biomedical Engineering Fellowship

## Patents

2016	Dissertation Fellowship, Biomedical Engineering Department Nominated Fellowship
2017	Vasant Kearney, Timmy Siau. (2017) ?Methods and Apparatus for Deep Learning-Based Automatic Segmentation on 3D Medical Images?, U.S. Patent Application No. 62574716 Best Physics Talk Award: American Association of Physicist in Medicine Northern California Chapter
	Vasant Kearney, John Dorsey, Aaron Schoenberger, (2017) ?Deep Learning-Based Social Monitoring?, U.S. Patent Application No. 62579432
	Vasant Kearney, Timmy Siau. (2015) ?Systems and Methods for Cloud-Based Radiation Therapy Treatment Planning?, Non-Provisional U.S. Non-Provisional Patent Application No. 15359415

## Recent Significant Publications:

Kearney, Vasant, Chan, J., ? & Solberg, T. (2019). **Attention-enabled 3D boosted convolutional neural networks for semantic CT segmentation using deep supervision.** Physics in Medicine & Biology.

Chan, J.\*, Kearney, Vasant\*, ... & Solberg, T. (2019). **A convolutional neural network algorithm for automatic segmentation of head and neck organs at risk using deep lifelong learning.** Medical physics. \*These Two Authors Contributed Equally

Kearney, Vasant, Chan, J., & Solberg, T. (2018). **DoseNet: a volumetric dose prediction algorithm using 3D fully-convolutional neural networks.** Physics in Medicine & Biology.

Kearney, Vasant, Chan, J., ? & Yom, S.(2018). **The application of artificial intelligence in the IMRT planning process for head and neck cancer.** Oral oncology.

Kearney, Vasant, Haaf, S., ... & Solberg, T. (2018). **An unsupervised convolutional neural network-based algorithm for deformable image registration.** Physics in Medicine & Biology.

Kearney, Vasant, Descovich, M., ? & Solberg, D. (2018). **A Continuous Arc Delivery Optimization Algorithm for CyberKnife m6.** Medical Physics.

Kearney, Vasant, Solberg T., ? Valdes G. (2018). **Correcting TG 119 confidence limits.** Medical physics.

Kearney, Vasant, Cheung, J., ? & Solberg, T. (2017). **CyberArc: a non-coplanar-arc optimization algorithm for CyberKnife.** Physics in Medicine & Biology.

Kearney, Vasant, Huang, Y., ? & Tang, L. (2017). **Canny edge-based deformable image registration.** Physics in medicine and biology.

Kearney, Vasant, Chen, S., ... & Mao, W. (2015). **Automated landmark-guided deformable image registration.** Physics in medicine and biology.

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