ELECTRICAL ENGINEERING & COMPUTER SCIENCE

Ph.D. Seminar & Dinner



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Alexander Soane, Ph.D., Electrical Engineering & Computer Science, MIT, 2017



At <u>Exponent</u>, we work on many of the most challenging and prominent engineering problems in the world. If you are a Ph.D. candidate with strong communication skills, are motivated to learn on the job, and have a desire to apply your education in unexpected and innovative ways, Exponent will be an exciting opportunity for you! Our <u>Electrical Engineering & Computer Science Practice</u> invites you to learn more about how you can make a difference through engineering and scientific consulting. We perform investigations in a wide array of areas, including optics, power systems, semiconductors, consumer products, vehicles, medical devices, radio waves, software, networks, controls, and batteries—to name a few. We would love to share our enthusiasm and passion for Exponent—and engineering and scientific consulting—with you through a discussion of interesting projects we have worked on and challenges we have solved. Some of our projects include:

- Determining why critical care medical devices failed (by analyzing the hardware/software interface)
- Reverse engineering hardware and software to determine how "stuff" works
- Building prototype unmanned robot vehicles to seek out and disarm explosives
- · Determining the root cause for catastrophic Li-ion battery failure
- Determining the root cause of printed circuit board failure in smart phones and lap tops
- Conducting a scientifically rigorous analysis of electrocution or fires caused by high-power electrical lines and fixtures
- · Determining the root cause of electrical system failure in major aircraft disasters
- Developing innovative and cost effective image processing and classification techniques for identifying counterfeit Ics

With questions or to apply, please email Patricia Mafioletti with CV at pmafioletti@exponent.com.

Wednesday, April 4th at 6:00pm in 32-D463

