Joseph Curtis

Nuclear Engineer

Radiation Detection ⊕ Data Analysis ⊕ Modeling & Simulation

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education

2012–2014 (Fall)	**Masters of Science** Nuclear Engineering (GPA 3.84) Benchmarking the Gamma Ray Sensors on RadMAP	University of California, Berkeley
2007–2011	**Bachelor of Science** Nuclear Engineering (GPA 3.86) Honors Thesis: Measurements and Analysis of Fukushima Fallout by BRAWM	University of California, Berkeley

awards

2014	Member of Alpha Nu Sigma	American Nuclear Society Honor Society
2013	Outstanding Graduate Student Instructor	Graduate Division, UC Berkeley
2011	Departmental Citation (Top GPA in graduating class)	Dept of Nuclear Engineering, UC Berkeley
2009	The Virgil Schrock Scholarship	Dept of Nuclear Engineering, UC Berkeley
2009	Member of Tau Beta Pi	National Engineering Honor Society

experience

Jan ‘15 – Present	**Associate Specialist** Upgrading hardware and real-time analysis software on mobile radiation detection system (RadMAP).	Lawrence Berkeley National Laboratory
Aug ‘12 – Dec ‘14	**Graduate Student Researcher** Experimentally validated Monte-Carlo and ray-tracing gamma-ray physics simulations.	Lawrence Berkeley National Laboratory
Aug ‘11 – Aug ‘12	**Junior Specialist** Supported graduate radiation laboratory course with signal processing coding, machining and teaching.	Dept of Nuclear Engineering, UC Berkeley
Mar ‘11 – May ‘11	**Honor's Research Assistant** Analyzed environmental samples for Fukushima Daiichi Reactor fallout monitoring.	Dept of Nuclear Engineering, UC Berkeley
Jun ‘10 – Aug ‘10	**Lab Technician & Instructor** Trained students from the United States and Japan to perform digital radiation detection experiments.	UC Berkeley & University of Tokyo
Jan ‘09 – Dec ‘09	**Thermo-Hydraulics Research Assistant** Designed and experimentally verified a first order fluid mechanics model in MATLAB.	University of California, Berkeley
Jan ‘09 – May ‘09	**Field Tester** Aggregated real-time traffic data with cell phone based GPS equipment by driving a test vehicle.	California Center for Innovative Transportation

leadership

2015 – Present	**DoseNet Project Co-lead** Managing technical development of networked radiation sensors for educational outreach.	Dept of Nuclear Engineering, UC Berkeley
2009 – 2014	**Engineering for Kids Day (E4K)** Coordinated logistics and safety for 300+ children during annual engineering outreach program.	College of Engineering, UC Berkeley
2012 – 2013	**Head Graduate Student Instructor** Led three other instructors to setup, conduct, teach and assess undergraduate course experiments.	Dept of Nuclear Engineering, UC Berkeley
2008 – 2011	**American Nuclear Society** Managed operations, organized outreach and liaised with national chapter as secretary, vp and president.	Student Chapter, UC Berkeley
2009 – 2010	**Engineers Joint Council** Facilitated annual budget allocation of college-wide funding for engineering student groups.	College of Engineering, UC Berkeley
2009	**Tau Beta Pi** Managed external relations with other student societies to foster collaborative relationships.	Student Chapter, UC Berkeley

skills

Programming: Python, MATLAB, git, Bash, HDF5, SLURM, LaTeX, CSS & HTML
Techniques: Scalable high performance computing, Monte-Carlo methods, uncertainty analysis, gamma-ray spectroscopy