

Al Miller III

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ABOUT	Software engineer passionate about holistic sustainability. Technically curious with a philosophical bent. Skilled in full-stack development, distributed systems, and data analysis.	
EDUCATION	University of Connecticut , Storrs, CT <i>B.S. in Mechanical Engineering, Minor in Philosophy, 3.6 GPA</i> Congressional Certificate of Merit, New England Scholar, Philosophy Club Cofounder, Resident Assistant, Engineers without Borders	2014–2018
PROFICIENCIES	JavaScript (React + redux, React Native). AWS (Certified Developer In progress). Python. C/C++. SQL. ML (TensorFlow). GIS (PostGIS, ArcGIS). Git. Español.	
EXPERIENCE	MPR Associates, Inc. , Washington, D.C., <i>Consulting Engineer</i> Highly multi-disciplinary consulting engineer, select experience including: <ul style="list-style-type: none">• Led an Agile team of three engineers in performing complex computational fluid dynamics calculations (CFD) to demonstrate adequacy of battery storage ventilation system designs against regulatory criteria. Developed novel workflows with ANSYS CFX, including implementation of SLURM for batch-running multi-day CFD jobs on RHEL servers.• Developed an asset management platform for energy providers for optimized allocation of resources and triaging of preventative maintenance actions (ArcGIS JavaScript API).• Performed statistical schedule risk analyses using numerical methods (<i>e.g.</i>, Monte Carlo simulations) and leveraged results to inform and influence the very top of Hanford management for the Department of Energy's largest (\$2.5 billion annually) capital project.	2018–present
SELECT PORTFOLIO	Simple Monte Carlo https://leios.co In progress. Monte Carlo for the rest of us. Built in React, AWS Lambda.	2019
	Metanoia Environmental App https://metanoia.app In progress. React Native environmental app.	2020
	Natural Language Processing for Energy Utilities https://github.com/ANMillerIII/NLP-Equipment-Failure-Mitigation Developed a multi-label classifier for the identification of trends and deficiencies in energy utilities equipment failure mitigation strategies from industry databases.	2020
HISTORY	Nguyen Research Group , Storrs, CT <i>Researcher</i> https://nguyenresearchgroup.com Co-authored <i>A Biodegradable Piezoelectric Force Sensor</i> in PNAS (14% acceptance rate) and <i>3D nano- and micro-patterning of biomaterials for controlled drug delivery</i> in Future Science	2015–2018
	Spring Valley Student Farm , Storrs, CT <i>Farmer</i> Volunteered and lived at an organic farm, and helped build a community through education and outreach. Co-designed and built a functional 1,000-gallon aquaponic system.	2017–2018
	United Technologies , Windsor Locks, CT <i>Senior Thesis</i> Co-authored <i>A Novel Method for Sealing Porous Plates</i>	2017–2018
	Engineers without Borders , Storrs, CT <i>Member</i> Supported development of a small-scale irrigation system to transport fresh water to remote communities Ethiopia's Amhara region; led design discussions with an international project team.	2014–2017
	General Dynamics , New London, CT <i>Engineering Intern</i>	2016
INTERESTS	Naturalism (hiked entirety of Pacific Crest and Appalachian Trails). Music (classical pianist).	