

John “Jack” Elsey, E.I.T.

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Objective

Complete PhD dissertation work and evaluate post-graduation employment options in the environmental remediation consulting industry.

Education

Tufts University School of Engineering; Medford, Massachusetts

Doctor of Philosophy in Environmental and Water Resources Engineering; May 2022 (anticipated)

Master of Science in Civil and Environmental Engineering; August 2018

Bachelor of Science in Environmental Engineering, Chinese Minor; May 2011

Skills

- **Languages:** proficient Mandarin Chinese (HSK Level 6)
- **Graduate Coursework:** environmental chemistry, environmental statistics, environmental transport principles, GIS, groundwater modeling, hazardous waste treatment technology, numerical linear algebra, machine learning, reactive transport in porous media, water resource systems
- **Computer:** git version control, LaTeX, Linux Bash (with shell scripts), MATLAB, MODFLOW, MT3DMS, Python 3 (with scikit-learn, SciPy, NumPy, and Jupyter notebooks), regular expressions

Work Experience

Tufts University Integrated Multiphase Environmental Systems Laboratory; January 2016 – present

Graduate Research Assistant

- Created numerical models to simulate bioremediation of chlorinated solvents by SiREM KB-1 and other microbial bioaugmentation cultures.
- Fit numerical models to laboratory experiments investigating inhibition of chlorinated solvent bioremediation by PFAS contamination.
- Refined and operated machine learning models to interpolate between soil borings and make conclusions regarding the distribution of subsurface contamination.
- Assisted with literature review, report preparation, and a field-scale bioremediation pilot test.

Suntime Environmental Remediation Company; July 2014 – June 2015; Changzhou, China

Assistant Project Manager

- Oversaw work at several environmental remediation projects involving heavy metal, organic, and other contamination.
- Researched technical literature to support remediation plan development.
- Managed health and safety program for an office of approximately 40 technical staff.
- Translated technical reference materials and company publications to and from Chinese.

Roux Associates; January 2011 – December 2013; Boston, USA

Staff Engineer, Staff Assistant Engineer, Intern

- Worked on site at dozens of different environmental remediation projects involving organic, caustic, radioactive, and other contamination.
- Responsible for coordinating field events and training entry-level staff.
- Managed equipment procurement, storage, and maintenance for an office of approximately 30 technical staff.
- Oversaw and assisted with remediation system pilot tests.
- Wrote reports for client and government review.

Honors

- Licensed Site Professional Association Scholarship; 2017
- BSCES Jonathan B. Golden Scholarship; 2017

Activities

Field Methods in Hydrogeology class, Tufts University; 2014 – 2020 (paused during pandemic); *Paid Instructor*

- Gave annual demonstration of how to sample groundwater as per EPA low-flow procedure.

Malden Senior Community Center, 2019 – 2020 (paused during pandemic); *Volunteer English Instructor*

- Started a weekly class teaching elementary English to Mandarin speakers as a way to practice my Chinese.

MegaMandarin.com, 2020 – present; *Founder*

- Started online business as weekend project during COVID-19 lockdown to sell digital tools for learning Chinese.