

Jack L. Elsey, PhD

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Summary

Field-tested environmental engineer with a knack for modeling and statistics.

Education

Tufts University School of Engineering

- PhD in Environmental and Water Resources Engineering (2023)
 - MS in Civil and Environmental Engineering (2018)
 - BS in Environmental Engineering, Chinese Minor (2011)
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Expertise

- Python for analysis, automation, modeling, and optimization
 - parameter estimation and uncertainty quantification
 - machine learning and statistical inference
 - contaminated site investigation and remediation
 - proficient Mandarin Chinese (HSK Level 6)
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Honors

- Licensed Site Professional Association Scholarship
 - BSCES Jonathan B. Golden Scholarship
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Activities

www.megamandarin.com

2020–present; *founder*

online business selling tools for increasing Chinese vocabulary and learning calligraphy

Hydrogeology Field Methods Class

2014–2022; *paid instructor*

gave annual groundwater sampling demo

Medford Chess Club

2018–present; *primary organizer*

arrange weekly chess meetup in Medford, MA (more details at www.medfordchessclub.com)

Work Experience

Tufts University Integrated Multiphase Environmental Systems Laboratory

Medford, MA

2016–2023; *graduate research assistant*

- Published two papers, with two more currently in peer review.
- Created numerical models to simulate bioremediation of chlorinated solvents by bioaugmentation cultures.
- Conducted large-scale Monte Carlo experiments to evaluate best practices for estimating microbial model parameters from lab data.
- Investigated inhibition of chlorinated solvent bioremediation by PFAS contamination.
- Refined machine learning models for interpolating between soil boring data.

Suntime Environmental Remediation Company

Changzhou, Jiangsu Province, China

2014–2015; *assistant project manager*

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

Roux Associates

Woburn, MA

2011–2014; *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.