

# Alexander N Zook

📍 Baltimore, Maryland, United States ✉ alexnzook@gmail.com ☎ 7175199938 🔗 <https://www.linkedin.com/in/alexnzook/> 🌐 <https://github.com/anzook>

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## SUMMARY

Diverse engineer designing solutions wherever problems are found, from being a licensed professional environmental engineer to aspiring full-stack developer. Intuitive and creative, a great team asset that can lead and find success on all levels. Lehigh University and Johns Hopkins engineering trained with a proven record in a career as an Army civilian.

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## EXPERIENCE

### Environmental Engineering and Operations Manager

Army Public Health Center

2015 – Present, Gunpowder, MD

Field water engineering subject matter expert and technical consultant for deployed operations and technology implementation through water reuse and treatment technologies. Regularly planned and led successful team projects and surveys as a project officer.

Project Lead and Content creator and for Health of the Force Online publication and website.

Digital/Mobile First, Strategic Initiative and organizational change management core planning team member and Data lead and SME. Developed and continue to lead a grass-roots effort to provide a data analysis and visualization center, engaging experts across the organization. Improves daily Organizational operations and facilitates collaborations through data management and technology implementation.

### Engineering Pre-doctoral Research Associate

Lehigh University

2012 – 2015, Bethlehem, PA

Lead researcher on international project, producing energy and marketable products from mixed waste materials. Report produced on bench-scale testing of waste-to-energy technology resulted in \$5 mil vote of investor confidence.

Research on novel bio-based foundry core binders using TG-GC-MS analysis paper featured at 71st World Foundry Congress

### Engineering Consultant

Oil Evolution, LLC (now SYNPET)

2014 – 2015, West Hempstead, NY

· Successfully optimized and commercialized innovative waste processing system; trained engineers for and set up international research laboratory abroad; hired as first external consultant after collaborating on University project due to proven value add

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## EDUCATION

### Certificate of Full-stack Web Development

Johns Hopkins School of Engineering · Baltimore, MD · Spring 2020 (expected)

### Master of Science in Environmental Engineering

Lehigh University · Bethlehem, PA · 2014 · 3.58

### Bachelor of Science in Engineering

Minor in Science and Environmental Reporting · Lehigh University · Bethlehem, PA · 2013 · 3.47

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## INVOLVEMENT

### Baltimore Community Rowing

Competitive Master's Rower · 2016 – Present

- Competitive team member and consistent morning practice participant.
- Supports club activities through regular volunteer efforts and participation.

### Lehigh Rowing

Lehigh University · Varsity Rower · 2009 – 2013

- Coach's Award recipient for 11–12 and 12–13 seasons
- Maintained rigorous 40hr./week practice and race schedule
- Varsity member and leader since walking-on as a freshman

### P.C. Rossin College of Engineering Fellows

Lehigh University · Junior Fellow · 2010 – 2013

- Led department recruiting and orientation events and tours.
- Selected based upon academic performance and character.
- Represented Environmental Engineering Department within the Society for my year.

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## SKILLS

Front end: HTML, CSS, JavaScript (ES6), React, jQuery, Bootstrap frameworks and responsive design

Back end: Node.js, Express, User Auth., MERN Stack

Data/Database: MongoDB, MySQL, Tableau, R/R-studio, MS Access

Collaboration: Git and Github, Heroku, Google Cloud, Slack