

Weston Bushyeager

Forward Deployed Software Engineer

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EXPERIENCE

Forward Deployed Software Engineer

Jan 2022 – Present

Gecko Robotics, Inc., Pittsburgh, Pennsylvania

- Led development of Gecko's electromagnetic acoustic transducer (EMAT) inspection software stack from handheld prototype to production robotics, contributing to the Navy inspection capability covered by a contract with a \$71M ceiling.
- Built the data-to-deliverable workflow for Navy deck inspections, contributing to team outcomes across multiple inspections: 150+ fewer delay days and \$10M+ in avoided unnecessary planned repairs.
- Owned the acquisition application used by 20+ operators and engineers, shipping field-driven features including live ML scan validation, localized scan visualization, and automatic stall recovery.
- Co-invented a patented passive localization prism that replaced powered active prisms and was used on Gecko's Navy inspections.
- Developed and tested new inspection features alongside operators on active jobs, using field feedback to refine the software and keep improvements moving into production.

Field Engineer / Robot Specialist

Mar 2020 – Jan 2022

Gecko Robotics, Inc., Pittsburgh, Pennsylvania

- Engineered a proof-of-concept surface-scanning robot for laser profilometry using off-the-shelf components and custom PyQt applications.
- Served as the go-to field engineer for prototype robots, troubleshooting unfamiliar systems, improvising solutions on site, and reporting issues back to engineering.
- Built cloud automation in AWS Lambda with Python to streamline ticket creation for robot issues reported during field operations.

Field Fracking Engineer

Jan 2019 – Mar 2020

ProFrac Services, Smithfield, Pennsylvania

- Managed chemical and sand systems on location, from calibration and quality checks to inventory tracking and daily reorders.
- Served as the onsite company representative, working with the service supervisor and customer while managing frac software and troubleshooting field issues.
- Supported over \$15M in services and handled reporting, pricing, and timekeeping across stages.

TECHNOLOGIES

Python · TypeScript · React · Next.js · Tailwind CSS · AWS Lambda · PyQt

PATENTS

System, apparatus and method for improved location identification

US 12,162,160 B2 · Granted

System, method, and apparatus to operate an inspection robot on rugged surfaces

WO 2025/240461 · Published application, pending

EDUCATION

The Pennsylvania State University

2014 – 2018

Bachelor of Science in Petroleum and Natural Gas Engineering