

GABRIEL S. GARLAND-ROGERS

4352 E. Holmes Street, 85711

Phone: (520) 278-0400

Email: ggarlandrogers@gmail.com

EDUCATION

University of Arizona, Tucson, AZ

Graduated: May 2019

Bachelor of Science in Public Health: Environmental Health

Presidio High School, Tucson, AZ

Graduated: May 2015

Diploma

WORK EXPERIENCE

Hydrogeology Lab Technician, **GeoSystems Analysis**

Jan 2023 – Present

- Conduct hydraulic property experiments, including testing of soil properties for heap leaches and soil-cover systems.
- Assist in managing key aspects of hydraulic conductivity testing, including equipment setup, data collection, supply ordering, troubleshooting, and training new staff in test procedures and interpretation of results.
- Calibrate and maintain lab instruments including monometers, voltmeters, multimeters, pH readers, hydrometer bulbs.
- Oversee operation and maintenance of critical lab equipment, including the air compressor and forklift; partially responsible for organizing samples and yard storage
- Lead sensor assembly and soldering of electronic components for water and air flow monitoring; train others in proper techniques and safety procedures.
- Contribute to R&D efforts, supporting the development of new testing methods and improvement of existing processes through innovation and practical implementation.
- Develop, test, and implement Standard Operating Procedures (SOPs); coordinate task assignments and optimize lab workflows.
- Perform QAQC using Excel; reformat and validate data for accuracy and consistency.

Geotechnical Lab Technician, **Call & Nicholas Inc**

Mar 2022 – Nov 2022

- Performed geotechnical testing, ensuring compliance with ASTM standards for soil, rock, and construction materials.
- Operated and maintained lab machinery, including saws, grinders, lathes, and air compressors.
- Conducted soil testing for shear-strength, plasticity, and moisture limits, inputting results into Excel reports.
- Collaborated with engineers and geologists to provide technical support and data analysis.
- Experience installing vibrating wire piezometers in the field to monitor subsurface water pressure.

Research Technician, Technician 2, **University of Arizona**

Mar 2021 – Mar 2022

- Performed biochemical assays on tissues, proteins, and enzymes using established laboratory protocols to study inflammatory responses.

- Conducted DNA genotyping and molecular analysis to support genetic research projects.
- Operated various analytical instruments, including spectrometry readers, centrifuges, incubators, and gel electrophoresis systems.
- Prepared and processed biological samples, ensuring accuracy and reliability in data collection and reporting
- Served as the primary contact and preparer for laboratory audits; ensured all documentation, safety procedures, and compliance records were current and audit-ready.
- Collaborated with multidisciplinary research teams across University of Arizona departments; supported joint studies and contributed to scientific publications.
- Maintained lab cleanliness and strict adherence to biosafety protocols and institutional guidelines.

Cord Tissue Technician, Technician 1, **Cord Blood Registry** *Jun 2019 – Mar 2021*

- Processed cord blood tissue using scalpels and storing with liquid nitrogen; following protocol
- Performed quality assurance tasks, ensuring accurate documentation and compliance with health and safety guidelines.
- Measured metabolic rates of cord tissue samples using spectrometry; a bio-chemical assay process called alamarBLUE
- Operated biological safety cabinets and micropipettes.

Lab Assistant, Plant Sciences Lab, **University of Arizona** *Feb 2016 – May 2018*

- Assisted in research focused on pollen tube function and pollination mechanisms.
- Maintained lab equipment, sanitized tools, and conducted soil sample collection for further analysis.
- Operated autoclave and ensured the proper sterilization of equipment.

ACHIEVEMENTS, AWARDS AND CERTIFICATIONS

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| • CPR & First Aid Certification | <i>Aug 2025</i> |
| • Forklift Certification | <i>Aug 2025</i> |
| • MSHA 5000-23 Certification | <i>2022-2024</i> |
| • OSHA 8-Hour Inspection | <i>Apr 2019</i> |
| • HAZWOPER Training Certification | <i>Dec 2018</i> |
| • Dean's List / Academic Distinction | <i>2017-2018</i> |