# Elijah Retzlaff

(541) 282-4650 elijah.retzlaff@columbia.edu riverray121.github.io/elijah-website.github.io/ New York, NY github.com/riverray121 linkedin.com/in/elijah-retzlaff/

#### EDUCATION

## Columbia University

New York, NY

B.A. in Computer Science | GPA: 3.90/4.00 | ACT 35

2023 - 2025

- Relevant Coursework: Parallel Optimization for Robotics, Computer Architecture, Advanced Programming in C, Artificial Intelligence, Linear Algebra for ML
- o OpenVest Spring 2024 SWE Internship at FinTech startup (Columbia Business School)
- Transferred from Tufts University School of Engineering

### SKILLS AND TECHNOLOGIES

Languages: Python, C, C++, PHP, HTML, CSS Technologies: Flask, Docker, ROS1/ROS2, Arduino Cloud/DevOps: Azure DevOps, AWS, GCP

Tools: Fusion 360, Git, Fabrication (Woodworking, 3D Printing, Welding)

#### EXPERIENCE

# SmartEd Systems, LLC

Remote

Software Engineering Intern

Jun. 2024 - Aug. 2024

- Enhanced Security with MFA: Integrated Google, Microsoft, and Email Multi-factor Authentication (MFA) for 3 school districts, improving login security and compliance.
- Streamlined User Experience with SSO: Implemented PowerSchool Single Sign-On (SSO) using PHP and JavaScript, reducing login friction for 400+ users and increasing system adoption.
- Secured New Clients through Canvas LTI Integration: Developed Canvas LTI 1.3 integration (OAuth & OIDC) for SES PHP web app, leading to a district-wide contract based on feature demand.

## Innovations Health Devices, LLC

Citrus Heights, CA

Product Manager

Feb. 2021 - Aug. 2022

- Led Product Development of Kinoped Medical Robot: Directed a cross-functional team of 10 engineers, delivering a fully functional prototype within 10 months. (Visual Link | Google Drive Link)
- Optimized Resource Management: Managed development sprints, monthly budgets, and mitigated project setbacks while maintaining team motivation under tight financial constraints.

#### Software Engineering Intern

May 2020 - Sep. 2020

- **Developed Robotic Control Software**: Built a robotic simulation and control system using ROS1, Gazebo, C++, and Python, enhancing robotic functionality and testing.
- Contributed to Medical Device Designs: Provided technical input on machine designs, creating detailed technical documentation and performing simulations using MATLAB and Fusion360.

#### Projects

- MultiPlaylists Jan. 2023: Developed a cross-platform music player app integrating Spotify and SoundCloud for playlist creation using SwiftUI, Combine, Spotify SDK, and SoundCloud API.
- Jump Scheduler Sep. 2022: Built a web-based course scheduling platform for middle schools using Flask, AWS Elastic Beanstalk, and Stripe for payment processing.