RYLAN POLSTER

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EDUCATION

Yale University   2021–Present

B.S. Electrical Engineering and Computer Science, Expected 2025

- Cumulative GPA: 3.9
- Coursework in computer engineering, electronic circuits, digital systems, computer vision, and physics
- Yale Dramatic Association—Production Manager and executive board member
- Event Technician at The Schwarzman Center—Assist events with lighting, sound, and technical design
- Undergraduate Production Peer Mentor—Teach students technical theatre skills and promote safe practices
- Yale Computer Society—Develop a web application for students to coordinate meeting availability
- Yale IEEE Chapter—Work with a large radio antenna and design a wirelessly controlled LED system

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EXPERIENCE

Homebrew   2020–Present

Technical Steering Committee Member and Maintainer — Remote

- Strategize big-picture technical goals for the Homebrew organization and advise on technical disputes
- Implement features to improve user experience and efficiency
- Triage, review, and merge pull requests and issues
- Technologies: Ruby, Bash, Git, GitHub, and GitHub Actions

Yale Dramatic Association   2023–Present

Production Manager and Executive Board Member — New Haven, CT

- Approve student and professional designs to fit within time, labor, budget, and safety constraints
- Lead all load-in, tech, and strike activities to ensure safety and efficiency
- Coordinate with faculty at the David Geffen School of Drama at Yale and the Yale College Dean's Office
- Create technical planning documents and schematics using Vectorworks and other CAD software
- Participate in weekly board meetings and season selection

Smartphone Biopsy Needle Guidance Device Project   2021–2022

Software Developer — Cleveland, OH

- Developed a smartphone application to improve accuracy and speed in CT-guided needle interventions
- Co-authored a study published in Skeletal Radiology demonstrating the benefit of using the application which was presented at the Society of Skeletal Radiology's 2023 annual meeting

CWRU Institute for Smart, Secure, and Connected Systems   2019–2020

Software Engineering Intern — Cleveland, OH

- Developed an IoT device to monitor wheel wear on local transit cars
- Prototyped a LoRaWAN system for monitoring industrial power consumption
- Technologies: Python, Bash, Git, Ansible, AWS, MQTT, LoRaWAN, and Arduino

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PUBLICATIONS

Lui, C., **Polster, R.**, Bullen, J. *et al.* Smartphone application with 3D-printed needle guide for faster and more accurate CT-guided interventions in a phantom. *Skeletal Radiology* (2023). 10.1007/s00256-023-04453-x