

Designed for Inclusion: Innovation in An Undergraduate Robotics & AI Research Program

Rachel Burcin, Vish Mruthyunjaya, John M. Dolan
Carnegie Mellon University Robotics Institute



Opening Doors to Futures in Robotics

The CMU Robotics Institute Summer Scholars (RISS) community prepares students for STEM graduate programs through immersive research experiences, mentorship, community engagement, and graduate school application support. This is achieved through a compelling sense of community across multiple platforms. RISS' holistic scholar-focused support leads to 90% of RISS scholars applying to graduate school.

Expanded Program Model = Greater Impact

Pre-Program	➤ <u>Community Engagement</u> ➤ Academic & Preparatory Workshops ➤ Coaching & Cohort Building Activities
Summer Research Immersion	➤ <u>Community Engagement</u> (RI, CMU, & Industry) ➤ Student Development & Engagement Support ➤ Extensive Writing & Presentation Supports (Workshops, Tutors, Coaching) ➤ Peer Mentoring
Post-Program	➤ <u>Community Engagement</u> ➤ Admissions Mentors ➤ Peer Review Teams ➤ Continued Lab Engagement ➤ Alumni Engagement

Scholars Build Success Over 9 Months

Undergraduate Research Expands & Diversifies the Graduate School Pipeline

Undergraduate research experiences are a best practice identified by AAC&U and NSF's Growing & Diversifying the Domestic Graduate Student Pipeline Report. RISS combines high-impact approaches with intentional design to launch students into research and prepare them for successful transitions to graduate school.

Traditional REU Model	RISS Model
➤ Narrow research area focus, few PIs & labs ➤ 10 weeks summer immersion & then cliff ➤ Siloed experience	➤ Learning community (<i>research, learning theories, safe space, mentorship</i>) ➤ Broad research topic exposure combined with specific topic ➤ Extended model ➤ Broadening frame (<i>impact, community engagement, policy</i>)
34% apply to graduate school	90% apply to graduate school



Unique Features

Through partnerships with engineering design, community leaders, and policymakers, RISS has become a living lab for designing, implementing, and evaluating educational interventions that increase and diversify regional and national student participation in STEM graduate programs.



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