

Shweta Burgula

Enthusiastic student dedicated to intellectual and interpersonal growth.

shweta.burgula@gmail.com

908-432-3127

linkedin.com/in/shwetaburgula

www.shweta.dev

Education

Rensselaer Polytechnic Institute

B.S. in Chemical and Biological Engineering. Minor in Psychology. GPA: 3.43.

May 2022

Professional Experience

Intern at Genentech (40/10 hours/week)

May 2021-Nov 2021

- Designed a Tableau dashboard to track chromatography instrument performance and ensure system suitability.
- Contributed to a python script to automatically alert failed instrument system suitability.

Tutoring, Independent/Advising Center (10 hours/week)

Aug 2015 - Present

- Mentoring students of all ages and socioeconomic backgrounds.
- Regularly develop and teach complete curriculums for computer science, robotics, K-12 math, physics.
- Specialty in motivating and assisting underachieving students to excel.

Help Desk IT Consultant (5 hours/week)

Jan 2020 - Present

- Client-facing role to assist students by troubleshooting technical issues and communicating effectively. Used a ticketing system to store data and create requests.

Research Experience

Undergraduate Research Assistant at Zha Labs (6 hours/week)

Aug 2020 - Present

- Utilize molecular dynamics simulation software (LAMMPS) to model silk self assembly behaviors. Observe silk fibroin structure to mechanical property relationship. Developing Python script to automate analysis.
- Analyzed results from a scanning electron microscopy (SEM) for a COVID-19 antiviral coating.

Undergraduate Research Assistant at Basuray Labs (40 hours/week)

May 2019 - Jan 2021 (Seasonal)

- Conducted and analyzed cyclic voltammetry (CV) and electrochemical impedance spectroscopy (EIS) results.
- Independently design experiments to enhance the lab-on-a-chip device using spectroelectrochemistry.

Publications

American Institute of Chemical Engineers Regional Conference

- Shweta Burgula and Zhenglong Li, Utilizing Spectroelectrochemical Detection to Improve Sensitivity in the Shear Enhanced Lab on a Chip Device, 2020 Mid-Atlantic American Institute of Chemical Engineering Regional Conference, open. 9, October 2020 (Virginia Tech – Virtual)

Gulf Coast Undergraduate Research Symposium

- Shweta Burgula and Zhenglong Li, Utilizing Spectroelectrochemical Detection to Improve Sensitivity in the Shear Enhanced Lab on a Chip Device, 2020 Gulf Coast Undergraduate Research Symposium, open. 30, November 2020 (Rice University – Virtual)

12th International Undergraduate Summer Research Symposium

- Shweta Burgula and Zhenglong Li, Utilizing Spectroelectrochemical Detection to Improve Sensitivity in the Shear Enhanced Lab on a Chip Device, 2019 12th International Undergraduate Summer Research Symposium, open. 1, August 2019 (New Jersey Institute of Technology, Newark NJ)

Leadership and Involvement

American Institute of Chemical Engineers | President

Aug 2020 - Present

- Organize events, invite industry professionals and lead the executive board as president.

Coding and Community | Instructor, President

Aug 2018 - Present

- Teach minority students basic computer science and manage subcommittees to organize outreach events and programs.

Rensselaer Center for Open Source | Developer, Mentor, Project Manager

Aug 2018 - Aug 2020

- Act as mentor, developer, and project manager. Collaborate with a team to construct applications for uses such as COVID tracking, time management, and in-class quizzing.

Full Resume at shweta.dev

Continue on Page 2

Memberships and Affiliations

- American Institute of Chemical Engineers
- Phi Lambda Upsilon Chemistry Honors Society

Awards

- Brinegar Award for Outstanding Students in Undergraduate Research at RPI
- Genentech Outstanding Student Award
- AIChE Regional Conference 2nd Place Award
- Dean's Honors List
- Rensselaer Leadership Award (scholarship)
- NJIT REU Conference 2nd Place Award
- Nominated for the national URP Conference

Skills

- Python, C++, Matlab, R, HTML/CSS, Tensorflow
- Microsoft Office and Adobe Creative Suite
- Strong verbal and written communication
- Strong analytical thinking
- Fast learner
- Positive attitude with a growth mindset
- Fluent in Hindi, Basic proficiency in Latin

Certifications

- Biology and Chemistry Laboratory Certified
- CPR and BLS Certified
- Lean Green Belt Certified
- Lathe, Drill Press, and Machine Trained