

Ashish Srivastava

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EDUCATION

University of Colorado Boulder, Boulder, Colorado
B.S. in Chemical and Biological Engineering, GPA: 3.76
Minors in Computational Biology and Biomedical Engineering

Anticipated Graduation: Spring 2024

SKILLS

- Python + Jupyter Notebook proficiency (Certified by IBM: DA0101)
- Matlab, Mathematica, Fortran, C++, Bash, and Linux proficiency
- Microsoft Office Suite (including Excel/VBA), Sharepoint, \LaTeX
- English (Fluent), Spanish (Intermediate), Hindi (Intermediate), Korean (Intermediate), Urdu (Novice), Punjabi (Novice)

ENGINEERING EXPERIENCE

Undergraduate Research Assistant | University of Colorado Boulder, *Boulder, Colorado* Summer 2021- Present

- Used Fortran simulations to investigate the behavior of viscous droplets flowing through microchannels, and simulated physical parameter effects on droplet sorting in bifurcating channels.
- Wrote Python scripts for simulation steady-state velocity data aggregation and analysis.
- Designed and executed macroscopic wet-lab experiments to verify microfluidic simulation results, and wrote OpenCV scripts leveraging computer vision techniques for automating accurate experimental data collection.
- Presented research at RMFM 2021, RMFM 2022, and CU SPUR 2021 conferences, transitioned the lab to the CU supercomputing system, and wrote a lab manual explaining experimental and computational procedures.
- Trained 6 fellow undergraduate researchers on lab procedures for running simulations and experiments.

Python Student Liaison/Developer | University of Colorado Boulder, *Boulder, Colorado* Summer 2022- Present

- Collaborated directly with course professor to transition freshman engineering computing curriculum from existing framework utilizing Excel, VBA and MATLAB to a new comprehensive curriculum leveraging Python
- Wrote assignments and auto-grading software packages for over a cohort of students in the CHEN, CBEN, BMEN, AREN, CVEN and EVEN departments at CU Boulder

CU Boulder PHYS 1140 and LASP | University of Colorado Boulder, *Boulder, Colorado* Fall 2020

- “Solar Flare Frequency Distribution,” James Mason et al. in preparation for Astrophysical Journal (2022)
- Analyzed solar flare long wave X-Ray data from the GOES-15 satellite. Led 4 person research team using Jupyter notebooks to investigate the relationship between solar flare energy and frequency, cleaned and aggregated solar flare data, and implemented linear regression for analysis.

WORK EXPERIENCE

Course Assistant | University of Colorado Boulder, *Boulder, Colorado* Spring 2022- Present

- CHEN 3210 Heat and Mass Transfer (Fall 2022), CHEN 1310 Introduction to Engineering Computing (Fall 2022), CHEN 4830 Python for Chemical Engineers (Summer 2022), CHEN 3200 Fluid Mechanics (Spring 2022)
- Assisted instructors by holding office hours with students to review course material, assist with assignments, and answer general questions. Provided timely feedback/grading to students on their assignments.
- Recorded additional lecture videos for exam review topics, and gave full course lectures in addition to assigned course assistant duties

Legislative Intern | United States Senate, *Washington, District of Columbia* Summer 2021

- Conducted research for developing STEM policy legislation, drafted memos and briefing notes, and performed constituent outreach/customer service.

Management Assistant | Embassy of the United States of America, *New Delhi, India* Summer 2019

- Provided orientation to arriving diplomat families at one of the world’s largest U.S. Embassies. Supported departing families with closure and check-out. Trained colleagues on Standard Operating Procedures which I created, constructed Sharepoint sites, and graphic design accessible to over a thousand U.S. Embassy and Consulate employees in India.

LEADERSHIP & INVOLVEMENT

Tutor, New Delhi, India; Jeonju, South Korea; Boulder, CO; Dubai, UAE; Bucharest, Romania | *Tutor/Instructor* Fall 2015-Present

- Executed both in-person and asynchronous tutoring, maintained meticulous notes that were shared online alongside self-recorded screencasts.

Chemical and Biological Engineering Peer Mentor Program, Boulder, CO | *Peer Mentor* Fall 2022-Present

- Led group of 10 first-year Chemical and Biological Engineering students by organizing regular gatherings and establishing early support network to increase sense of belonging
- Introduced freshman to the environmental engineering program and university community, providing assistance, motivation, and encouragement in order to ease the transition to college

Boulder Bole Bhagra + Milana Dance Teams, Boulder, CO | *Dancer* Spring 2019-Present

- Involved in cultural dance teams dedicated to sharing the passion of the various traditional and contemporary Indian dance styles throughout the university and state of Colorado. Performed at various venues, including cultural events, showcases, and athletic events

Tau Beta Pi Engineering Honor Society, Boulder, CO | *Member* Fall 2020-Present