Swati Barua

swati.barua@nyu.edu | 347-522-6832 | Art Portfolio | Coding Portfolio
39 Evans St, Staten Island, NY, 10314

EDUCATION

New York University Tandon School of Engineering – Brooklyn, NY   January 2018
Bachelor of Science in Computer Science, Minor in Integrated Design and Media

PROFESSIONAL EXPERIENCE

Data Engineer – Zearn, Remote   Aug 2022 – Present
- Upgraded and maintained infrastructure: lead sessions for testing different AWS Redshift node configurations, upgraded dbt infrastructure, found ways to standardize projects' documentations, introduced and championed a culture of code reviews
- Developed CI pipeline, Jenkins pipeline, pipelines using AWS Lambda function and maintained production pipelines
- Lead weekly code release, resolve branch conflicts and manage GitHub repositories
- Created data marts using dbt and SQL to derive insights in custom reports and Looker dashboards used by internal/external stakeholders
- Loaded data from databases and various sources using Fivetran, Census and RudderStack to Amazon Redshift

Data Engineer – Teach for America, New York, NY   Jun 2019 – Jun 2022
- Designed, developed, and maintained database objects (such as stored procedures, tables, and views) using TSQL, SQL Server, and SSMS
- Designed, implemented, and maintained data integration systems using SSIS, Visual Studio, and BitBucket
- Created pipelines that automated testing and deployment of integrations, databases, and processes using Jenkins, BitBucket, Groovy, and PowerShell
- Implemented Azure Synapse and/or Azure Data Factory pipelines to move data between data storage
- Build repeatable unit test(s) for database and integrations using TSQLt framework, SSIS, Wiremock, and Insomnia
- Worked closely with BA, managers, other tech leads, and the QA team to implement solutions for the database and integrations
- Created documentation of processes and work using Jira and Confluence
- Did Proof of Concept(s) as necessary on new tools, processes, and technologies
- Stayed up-to-date on new integration, database, and cloud technologies (i.e. Azure)

Robotic Process Automation (RPA) Intern – Travelers Insurance, Hartford, CT   Jun 2017 – Aug 2017
- Delivered an RPA process that automated interactions between applications such as random.org, Single Sign On, Automation Anywhere (AA) and Traveler's internal password resetting sites to set/reset passwords in VMs
- Created 5 TaskBots and 3 MetaBots using AA according to specifications provided by the Tech Lead Consultant
- Applied concepts such as regex, error handling/exceptions, unit testing and modularizing to RPA
- Used Java to parse files and coded an algorithm that compared matching strings between two files
- Created the frontend of a messaging platform using Bootstrap Framework for a group project with three interns

RESEARCH EXPERIENCE

Undergraduate Summer Researcher – **New York University,** Brooklyn, NY   Jun 2016 – Aug 2016
- Plotted and programmed Tandon's history in an augmenting reality interface using Layar's API
- Implemented table definitions according to Layar's specifications and project's needs, sorted through Poly's archive to identify relevant data points, wrote insertion queries and executed other queries using PHP's prepared statements
- Wrote a seven page documentation of the whole project, published an [abstract] and presented in a poster session

TEACHING AND MENTORING EXPERIENCE

Mentor – Girls Write Now, NY, NY   Sept 2023 – Present
- Mentored two high school students in the Girls Write Now's Poetry 360 program
- Provided feedback on the development of the mentee's writing skills, collaborated with mentee to set realistic writing goals and shared personal experiences to inspire the mentee's writing journey
- Participated in Girls Write Now's activities and events to contribute to the community

Mentor – Built by Girls, NY, NY   Jul 2020 - Jan 2021
- Mentored three female mentees pursuing tech in college and high schools over the pandemic
- Established communication channel with each mentee, offered virtual mentoring sessions, emails and phone calls to maintain support during the pandemic
- Answered questions about studying computer science and working in tech, shared resources to begin studies/working in engineering and offered career and academic advice

AP Calculus & Physics Teacher – Double Discovery Center, Columbia University, NY Jan 2019 - May 2019
- Taught twenty-two students AP Calculus material and forty students Physics material
- Conducted interactive classrooms sessions to demonstrate Calculus and Physics concepts and problems
- Provided individual one-on-one support or facilitated group discussions, as needed

Associate Teacher – TestRocker, Harlem, NY   Jan 2019 – Apr 2019
- Provided one-on-one instruction on SAT Math, Reading and Writing sections to two different groups of twenty high school students
- Conducted regular assessments to gauge students' progress and used digital resources to improve scores

Lead Instructor – Girls Who Code, Jersey City, NJ   Jun 2018 – Aug 2018
- Lead a group of 20 high school girls and 1 Teaching Assistant on a 7-week curriculum at JPMorgan Chase site
- Taught computer science fundamentals such as: basic data structures, function, loops, conditionals and variables in the context of Data Science, Web Dev, Robotics, Python and Scratch
- Provided feedback on debugging individual/group coding projects, demos, execution of technical implementation, scope of projects, design decisions, ideation and presentation skills/format
- Maintained correspondence with Girls Who Code and JPMorgan Chase to coordinate classroom logistics, facilitate speaker series, and chaperone field trips

Calculus II Tutor – **New York University,** Brooklyn, NY   Sept 2014 – Sept 2016
- Provided individual tutoring to four undergraduates over the course of three semesters
- Instructed for about sixty-four hours according to students' strengths and needs
- Planned tutoring sessions to ensure student's academic success
- Identified students' individual strengths, needs and assessed their progress

Volunteer Instructor – Girls Who Code, Staten Island, NY   Sept 2014
- Taught a project-based curriculum to about 25 high school girls and boys for more than 32 hours
- Taught fundamental programming concepts and provided debugging feedbacks

- Mitigated potential behavioral issues, ensured participation and assessed students' progresses

ACADEMY AND COMMUNITY SERVICE

Publishing 360 Mentee – Girls Write Now, New York, NY   Sept 2021 – Sept 2022
- Created digital artworks using writing, visual and audio production skills while mentored by a published author and editor
- Edited other mentees' visual artworks

Board Member – NYU Tandon Alumnae Advisory Council, New York, NY   Jun 2019 – Jun 2020
- Contributed insights on university's initiatives to enhance effectiveness of alumni engagement activities
- Represented alumnae' interests so their perspectives were considered in shaping the direction of the council's activities

Youth Board Member – Girls Write Now, NY, NY   Sept 2013 – Sept 2015
- Wrote proposals that met mentee's needs and could easily be implemented by alumnae
- Informed Board Members about GWN's activities and offered perspective from a former mentee

Executive Board Member – TRIO's Women's Forum, Brooklyn, NY   Spring 2014
- In charge of planning, creating awareness, and executing activities that bring women in HEOP and TRIO together to foster a nurturing environment between women at NYU Tandon, which is otherwise a male dominated environment.

Poetry Reader – Transcendence Magazine, Internet-Based Publication   January 2015 – May 2015
- Analyzed submissions and determined if writing is suitable for publication
- Provided feedback on grammar mistakes and content improvement

Writing Mentee – Girls Write Now, New York, NY   Sept 2012 – Sept 12, 2013
- Engaged in writings sessions with mentor to receive feedback on writing
- Attended genre-specific writing workshops to improve writing skillset

Page – **The New York Public Library: Todt-Hill Westerleigh Branch.** SI, NY   Nov 2011 – Jan 2012
- Maintained library computers and cataloged library books and journals and mentored volunteers
- Assisted patrons to use the self-checkout machines, computers, printers and to find items on shelves or on holds

HONORS AND AWARDS

Swanson's Photography Educational Series Scholarship Recipient, La Luz Workshops	2022
Apple Mentorship Pathway Program, Apple	2022
Hear Me Out Selectee, Brooklyn Public Library	2020
GHC Women of Color in Tech Scholarship Recipient, Grace Hopper Conference	2019
CodePath (Technical Interview Prep) Selectee, CodePath	2019
MongoDB World Diversity Scholarship Recipient, MongoDB	2018
Grow with Google (Android Development) Scholarship Recipient, Udacity	2018
Forbes Under 30 Scholar for Under 30 Summit, Forbes Under 30 Summit	2017
Google's Women Techmakers Summit Selectee, Google	2017
NYU Grace Hopper Conference Scholarship Recipient, NYU Tandon	2016
TRIO Grant Recipient, NYU Tandon	2016 – 2017
School of Engineering Grant Recipient, NYU Tandon	2013 – 2018

NY-AI Merit Scholarship (NY-AIMS) Recipient, New York State   2013 – 2018
UFT Scholarship Fund Scholarship Recipient, United Federation of Teachers   2013 – 2017
Honorable Mention Writing Award, The Scholastic Art and Writing Award   2013
Poly WEST Scholarship Recipient, NYU Tandon   2013

FELLOWSHIP

Emerging Artist – NYC SALT Fellowship, New York, NY   Nov 2021 – April 2022
- One of twelve NYC artists selected to the emerging artists fellowship
- Created a collection of artworks that combines iPhone art, poetry, and/or coding
- Had the opportunity exhibit in a public venue at the end of program

Fellow – The Impact Fellowship, NY, NY   January 2018
- One of 35 fellows selected out of hundreds of applicants in a fellowship inspiring the next generation of social entrepreneurs.
- Ideated a wristband that gave visually impaired persons greater access to mobility via echolocation
- Participated in workshops for React, Node, Express, Firebase, MongoDB, Solidity, D3
- Met speakers and leaders from NGOs, social startups, think tanks, and philanthropic organizations.

PUBLICATIONS

- Barua, Swati. "Symphony." not.gli.tc/h. Airtable - << OPEN PORTS >> URL Gallery. Accessed July 18, 2023.
- Barua, Swati. "Turbulence." not.gli.tc/h. Airtable - << OPEN PORTS >> URL Gallery. Accessed July 18, 2023.
- Barua, Swati. "The Lure to Your Lore." *girlswritenow.org.* girlswritenow.org/story/i-am-the-lure-to-you-lore. Accessed July 18, 2023.
- Barua, Swati. "Public Digital Humanities." *Summer Research Viewbook*. Brooklyn, New York. NYU Tandon's Summer Research Program Undergraduate Abstracts, 2016. https://engineering.nyu.edu/sites/default/files/2020-10/2016_Summer_Research_Viewbook.pdf. Accessed July 18, 2023.
- Barua, Swati. "The City of Concrete Jungle." *Academia.* Staten Island, New York. Scholar Academy's Magazine, 2013.
- Barua, Swati. "Daughter's Litany." *New Worlds.* New York, New York. Girls Write Now 2013 Anthology, 2013.

INVITED READINGS

- Invited Author, "Jealous Sentiment," Space Cade7s Concert with Girls Write Now, August 12, 2023 (girlswritenow.org/event/space-cade7s-park-concert-in-collaboration-with-girls-write-now/)
- Invited Author, "I Am Mother Nature," Girls Write Now's Twitter Space with Roxane Gay, April 21, 2022 (twitter.com/i/spaces/1rmxPgOjYwnJN?s=20)
- Invited Author, "Transcending Walls," Girls Write Now's CHAPTERS Reading at Scholastic, May 17, 2013.

LANGUAGES

Bengali (Native or bilingual proficiency**), English** (Native or bilingual proficiency)

REFERENCES