

SHWETHA JAYARAJ - C.V.

ABOUT ME:

Recent computer science Master's graduate pursuing full-time positions researching quantum mechanics applications or engineering for impact. Expertise in Python programming thus looking for positions in software development and research positions particularly in quantum computing, machine learning, and validating technical work. I am a skilled team player who enjoys working with others and can also efficiently work independently for solution-oriented problems. Passionate about social impact & utilizing technology for good mission-driven work with demonstrated leadership ability.

TECHNICAL EXPERIENCE

QUBIT BY QUBIT, Quantum Education Fellow & Curriculum Developer, Remote/Global | Jan 2023 - Present

- Experience in teaching students of diverse backgrounds & developed code notebooks
- Developed technical curriculum for quantum education programs, including lesson plans, exercises, and assessments
- Wrote and edited technical documentation, including Jupyter notebooks, user manuals, guides, and tutorials for quantum algorithms & introductory quantum computing onboarding
- Developed original content for the 2023 Microsoft Winter School quantum initiative
- Collaborated with several internal programs to ensure understanding of all materials

SCHRODINGER, INC., Machine Learning Engineering, Manhattan, NY | May 2021 - Sept 2021

- Worked extensively in a predictive protein codebase for drug discovery software
- AI methods include Bayesian optimization, Bandit optimization, unsupervised learning, reinforcement learning neural networks, regression/classification training & more.
- Learned software development methods for testing & documented tickets using Jira.
- Weekly standups, & presented research on quantum computing & machine learning at the end of the internship.

NYIT CoECS, Academic Computing Specialist, Manhattan, NY | Sept 2019-Dec 2021

- FWS, compiling digital assets for NYIT media
- Experience in managing school software, hardware, plotter printing, 3d printers, 3d scanners, network admin, and databases

AETNA, INC/CVS Health, IT Analyst, Hartford, CT | August 2018- Sept 2019

- Application troubleshooting for internal Aetna software & hardware on a global scale.
- Resolved daily network lockouts & credential security issues & demonstrated strong documentation skills for fast-paced conflicts & ServiceNow ticketed escalations.
- Performed Windows 10 migration for all Aetna offices, pre & post-migration reporting
- Strong communication skills used for employee satisfaction/fast resolution times per escalated ticket
- High-level problem-solving skills needed to resolve multiple IT issues on a first-come basis per employee per software application/hardware needs

ADDITIONAL TECHNICAL SKILLS

- 5+ years in Python programming, Git control efficiency, VIM/Terminal commands, raspberry pi & 3D printing; Google Play developer, experienced in using extensively using Linux, MacOS, and Windows computers
- Python libraries in ML of note - TensorFlow, Pytorch, Keras, Scikitlearn, Numpy,

- Experienced in many programming languages: Java, Scheme, HTML/CSS, Qiskit, SQL, Bash
- experience with SDNs/computer networking & cloud computing
- Commonly used tools: Markdown, Google Colab, Notion, Obsidian, BBEdit

NON-TECHNICAL EXPERIENCE

HACK MANHATTAN INC., Director, Board of Directors, Manhattan, NYC | March 2021 -March 2023

- Led Manhattan's public hackerspace & maker lab out of the pandemic and assisted in launching the NYCMakesPPE initiative
- Wrote and oversaw meeting minutes and other official documents
- Managed internal communication channels as well as external partners and maintained organization records
- Elected to the role by the membership. volunteer position since 2019

WINDTELLIGENT.AI, Co-founder/CTO, Brooklyn, NYC | April-August 2022

- Founded data-driven wind speed predictive software startup (2022) after winning hackathon
- Left in August 2022 to finish research in academia, now maintained by cofounder at <https://windtelligent.ai>
- Wind pattern prediction software, interviewed with Y-Combinator & met with investors

NYIT QUANTUM COMPUTING CLUB (QRG), President, Manhattan, NYC | 2019-2023

- Started New York Institute of Technology's first quantum computing club
- Invited industry leaders in quantum computing such as J.P Morgan, Quantinuum, and others to speak to students/provide quantum computing resources
- Interdisciplinary student-led group and encouraged students of all majors to join and learn
- Taught students how to log in to IBM Quantum to access quantum computers
- Organized quantum computing events at NYIT & Led discussions in community discord servers through the pandemic, a student-led position with a horizontal hierarchy style

37 WAYS, INC, Corporate Trainer, Meriden, CT| May-August 2018

- Summer small business internship to set up & distribute free smartphones to government assistance program recipients across low-income cities in Connecticut for residents in need
- Held conference calls, did daily peer presentations, and ran workshops on leadership, technology, & marketing practices
- Promoted to Trainer to manage, interview, and train a team of account executives under the Assurance Wireless LifeLine campaign

EDUCATION

NEW YORK INSTITUTE OF TECHNOLOGY, MANHATTAN, NY

- Master's in Computer Science - *research interest in Quantum Computing*
- Bachelors in Computer Science, Social Sciences, & Technology- honors: *cum laude*

UNIVERSITY OF CONNECTICUT, STORRS, CT

- Bachelor's in Computer Science & Engineering (transferred)

CERTIFICATES:

- Boston University's EdX Inclusive STEM Teaching certificate, 2023
- FCC Licensed Amateur Radio Technician, 2023
- Microsoft Azure Q# Certificate, 2021
- IBM Qiskit Certificate, 2020

ACADEMIC WORK/HONORS/PROJECTS

AWARDS & HONORS:

- Presented talk “Model of Learning for the Quantum Programmer”, poster presentation along with NYIT quantum research group, SOURCE Symposium, Manhattan, NY, April 2023,
- Presented talk on quantum computing master’s research paper, International Conference for Art, Science, and Engineering conference speaker University of Tokyo, March 2023
- Paper on Introducing Quantum Computing work published in Data Driven Investor, December 2019
- Presidential Honors List NYIT 2019, 2020
- Consultants for Public Good at NYIT, 2019-2023
- Max Planck Institute for Physics Poster Presentation, DCURQ2020

PROJECTS & HACKATHONS:

- NYC Local Lead, NASA Space Apps Hackathon, September 2022
- Hack House hackathon Top 3 for “windtelligent” project, April 2022
- Zebra Technologies Security Hackathon participant, 2021
- HackerEarth Quantum Challenge Hackathon participant, 2020
- NYCMakesPPE initiative coordinator, 2020
- Storm Station for Climate Resilience project - Puerto Rico 2020
 - Set up solar panels & network connections in Puerto Rico for disaster-affected residents
- Nasdaq Equalithon First Place, 2019
- Bio-IT World FAIR Hackathon Runner-up, 2017
- Yale Social Impact Conference participant, 2016
- Multiply Your Options Engineering Diversity Outreach, 2015 & 2016

REFERENCES

Michael Nizich, Ph.D., (Master’s Thesis Supervisor). Professor, College of Engineering & Computing Sciences, New York Institute of Technology.
Email: mnizich@nyit.edu

Gabbie Meis (Program Manager, Qubit by Qubit)
Email: gabbiemeis@gmail.com

Yusui Chen, Ph.D., (Quantum Research Advisor), Professor, Department of Physics, New York Institute of Technology.
Email: yusui.chen@nyit.edu