





# Jeevesh Krishna Arigala

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📍 SSN College of Engineering    9393919719

## EDUCATION

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**BE Computer Science Engineering,** 2020 – 2024  
SSN College of Engineering, Kalavakkam, Tamil Nadu  
CGPA : 8.77/10

**Quantum Computing, Qubit by Qubit** 2022 – 2023  
100% Grade on all assignments and projects.

## PROFESSIONAL EXPERIENCE

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**NatWest Group, Software Development Engineer Intern**  06/2023 – 08/2023  
Chennai, India

### Responsibilities:

- Led the development of a cutting-edge Single Sign-On (SSO) application using the SAML protocol.
- Built the Identity Provider (IDP) from scratch to ensure seamless and secure authentication.
- Actively participated in daily Scrum meetings, adapting quickly to project dynamics.

### Achievements:

- Recognized for contributions and offered a full-time position.
- Received a substantial annual salary offer of 1.77 million INR.
- Demonstrated technical prowess, adaptability, and commitment to excellence during a transformative experience.

## LEADERSHIP/ACTIVITIES

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**ACM Student Chapter, Chairperson**

**Google Developer Student Club (GDSC), Cybersecurity Team**

**SSN Cybersecurity Club, Chairperson/Co-Founder**

**National Service Scheme (NSS), Student Volunteer**

## SKILLS

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**Programming:** Python3(Proficient), C(Fluent), OpenQASM(Prior Experience), Q#(Prior Experience), SQL(Fluent),HTML(Fluent), CSS(Fluent), JS(Fluent), Java(Fluent), Bash(Fluent)

**Frameworks and Tools:** Qiskit, Cirq, QuTech, PyQuil, Tensorflow 2.0, OpenCV, Git, NodeJS, MongoDB, Google Cloud Platform, Oracle SQL,MySQL, Firebase, Docker, Kubernetes

## PROJECTS

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**Kodex-Draw, HTML, CSS, PaperJS, HammerJS, Web Sockets**

A Drawing canvas that uses web sockets for real-time bidirectional event-based communication for collaboration and also smoothens whatever you draw giving you more control over the diagram. Can be used on a Digital Board in Classrooms.

**Smart Armband with Fall Detection (In progress, filing for patent),**

IoT, ML, Human Activity Sensing and Recognition

An internally funded project by the department of computer science SSNCE, which helps detect falls, predict heart strokes and inform the caretakers and doctors for the elderly in case of emergency. The web application provided with the device will help manage and assess the patient's vitals on a regular time to time basis. The data gathered through the sensors include Heart rate, Oxygen saturation, etc.

**Qudex, Qiskit, Cirq, IBM Quantum, QuTech, OpenQASM**

A collection of open-source quantum protocols and algorithms aimed at beginners in quantum computing, hosted on GitHub. The goal of this repository is to provide a comprehensive and easy-to-understand introduction to various quantum protocols and algorithms for beginners in quantum computing. The implementations are well-commented and include detailed explanations of the underlying concepts, making it easy for anyone to learn and understand.

**mApantser-Blog**, *Full-Stack, Python3.x, Html, CSS, JS, Flask, Google Firestore, Jinja*

Simple Web App built from scratch using the Flask framework. It uses Jinja for templating the HTML and Google Cloud Firestore as a NoSQL database. This app allows you to easily create and manage blog posts and track stats and analytics. You can also add tags to each blog post to easily organize and find them later.

**Maze Solver**, *Python3.x, PIL, Pygame*

A program that uses manhattan distance as a heuristic function and solves a maze given its structure and writes the explored states and solution to a JPEG file.

**AI Tic-Tac-Toe**, *Python3.x, Pygame, ML*

A Tic-Tac-Toe game against the computer with a graphical user interface that uses a **minimax algorithm** to always play the optimal move.

**AI Crossword Generator**, *Python3.x, PIL, ML*

An AI program that generates a crossword puzzle given the words and structure of the crossword and writes it to a JPEG file.

## AWARDS

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**IBM Quantum Spring Challenge 2023**, *IBM Quantum*

7th person (globally) to completely finish all the labs successfully in IBM Quantum Spring Challenge 2023

**NSEJS National Top 1 %**, *IAPT (Indian Association of Physics Teachers)*

Awarded the National Top 1 % certificate in NSEJS by the Indian Association of Physics Teachers.

**MIT iQuHACK 2023**, *MIT iquise*

Secured 4th place in Microsoft's challenge at the iQuHack 2023, which was focused on optimizing quantum circuits and specifically quantum oracles. The challenge involved rewriting the code of quantum oracles to maintain their correctness while using minimal resources, such as logical qubits and cycles in the circuits.

**IBM Qiskit Ecosystem**, *IBM*

Contributed to the IBM Qiskit Ecosystem by developing and implementing features, fixing bugs, and creating educational projects to assist beginners in understanding quantum computing using Qiskit.

**Hacktoberfest 2022**, *Digital Ocean*

Participated in Hacktober 2022 and contributed to open-source projects. Developed and implemented new features, and fixed bugs. Successfully completed and won the Hacktoberfest 2022 challenge.

**USACO**, *USA Computing Olympiad*

Contributed to the open source USACO Guide for competitive programming.

## COURSES

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**AWS Machine Learning Foundations**, *AWS*

**MIT Introduction to Deep Learning 6.S191**, *MIT*

**CS50's Introduction to Artificial Intelligence with Python**, *HarvardX*

**Intro to TensorFlow for Deep Learning UD187**, *Google*

**C/C++ for competitive programming**, *Coursera*

**CS50's Introduction to Computer Science**, *HarvardX*

**Qubit by Qubit (EQCI)**, *IBM, The Coding School*

**Quantum Algorithms and Cryptography**, *IIT Madras*

**Convolutional Neural Networks in TensorFlow**, *DeepLearning.AI*

**Introduction to TensorFlow for Artificial Intelligence, Machine Learning and Deep Learning**, *DeepLearning.AI*

**15-859BB: Quantum Computation and Quantum Information**, *CMU*

**Quantum Mechanics and Quantum Computation**, *UCB*

**6.858 Computer Systems Security**, *MIT OCW*

**18.06 Linear Algebra**, *MIT OCW*

**Introduction to Algorithms**, *MIT OCW*

**Introduction to Cryptography - CMSC 456**, *UMD*