

# JOY TERENCE BARNES

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## EMPLOYMENT

### Software Engineer

Avaya

July 2017– June 2021

#### • Avaya CPaaS

- **One click integration:** Implemented a built-in telephony integration with Dialogflow in collaboration with Google. This integration was recognized for its ease of setup (<1min), high speech quality, powerful API, and support for features such as DTMF, Barge-In, Mixed Audio, Agent Handoff.
- **Workflow designer:** Worked a 'no-code' platform for end users to quickly build and achieve the various telephony scenarios. Focused on both frontend visualization (React) and backend orchestration (Conductor)

#### • Avaya IX Workplace (Windows)

- Led windows app development and collaborated with server teams across geography.
- **Avaya SSO:** Implemented SSO feature with token caching, refresh mechanism and reduced storage by 3 times.
- **Outlook plugin:** Involved in developing a plugin on the Windows Outlook App that enabled retrieval of contact and meeting information along with providing a click to call feature to redirect the calls via Avaya IX Workplace Windows Desktop App.
- **CI/CD:** Completely automated all test cases to be run either periodically or on a commit. Test cases also included automatic calling and analysis of voice quality against a defined set of metrics. Made use of tools like Bamboo, Jenkins, GCP, TestNG, J-Unit, Selenium, Winium. Results were shown on Hygieia dashboard.

#### • Avaya IX Workplace (Avaya Vantage, Android)

Played an architect role to interact with multi-disciplinary teams across geography and define the features that would be supported on Avaya vantage, an android based desktop touch screen device that is used globally across different domains such as hospitals, offices.

#### • WebRTC with Voice

Added voice control for Avaya's WebRTC client to make p2p and conference calls while supporting various mid-call features, using JavaScript.

#### • Multi-video Behavior tracker.

Worked on a project that presented a real time or time-stamped tracking of behavior and reaction of person on the other end of the video call. This was used to gain valuable insights in cases such as pitching a product or the improvements in the existing product to the customer. Developed as part of internal hackathon.

## EDUCATION

### R.V College of Engineering, India

August 2013-May 2017

- B.E in Computer Science and Engineering
- Cumulative GPA: 9.2/10

## TECHNICAL STRENGTHS

Languages	C++, Python, JavaScript, Golang, Dart, C#
Frameworks	Django, Git, React, React-Native, Flutter, Keras, TensorFlow, GraphQL
Tools	Jenkins, Bamboo, Eclipse, Android Studio, GitHub, Visual Studio
Platforms	Linux (Ubuntu), Windows

## PROJECTS

#### • View 360°

*Hackathon, Amadeus and Oracle*

A Website that gives virtual tour of best hotels to the user, when he/she enters their destination. While it provided immersive experience, it also tracked user's behavior within the tour and provided valuable insights via beautiful visualizations to hotel owners. Created using JavaScript, Python, Flask, SQL and Aframe.js. Won first place in the hackathon, organized by Oracle and Amadeus, with a team of 4.

#### • GitHub-Collab

Developed an Android Mobile App, using React-Native, GraphQL. The aim was to facilitate open source contributions (inspired by Code Triage). It made use of GitHub GraphQL api, via OAuth2. User could search by repositories, watch an issue, contribute and perform many more such actions.

#### • Face Generation using Generative Adversarial Networks

*Major Project, 8<sup>th</sup> Semester*

Worked on generation of faces using trending deep learning network, GANs. The faces generated by the neural network were realistic and completely unique that is, they were not a part of dataset fed to the network. This was implemented using Tensorflow.

#### • Medicine Equipment Database

*Database Management Systems, 5<sup>th</sup> Semester*

Implemented a database for hospitals to obtain a list of medical equipment suppliers and their inventory for purchase. Also added the support for doctors to prescribe medicines depending on their availability along with full support for real time notifications and secure patient profile and history records management. The solution was implemented using MySQL.

#### • Smart News Suggestion

Developed a Java software that takes image of a news from any newspaper as input and returned relevant news/articles of the same topic from other news sources, providing a wider perspective of the same topic to the reader. This was created using Java, OpenCV, Swing.