GOKUL VASUDEVA

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EDUCATION

Bachelor of Engineering in Computer Science and Engineering GPA: 8.3/10 **Aug 2020**

PES University Electronic City Campus, VTU, Bengaluru, India

- *Courses*: Design and Analysis of Algorithms, Data Structures, File Structures, Computer Networks, OOPs, Design Patterns, Operating Systems, DBMS, Data Mining, Big Data Analytics, Machine Learning, Artificial Intelligence, Web Development, Information and Network Security.

Pre University, ISC Percentage: 92% **May 2016**

Bethany Junior College, Indian School Certificate (ISC), Bengaluru, India

- *Courses*: Physics, Chemistry, Mathematics, Computer Science, English

SKILLS

Domains: Full stack Software Development, Software Engineering, Deep Learning/Machine Learning, Distributed Systems.
Frameworks and Languages: C/C++, Java, Python, Go, JavaScript, Bash, Git, Express JS, Node JS, React JS, Flask, REST, Android.
Libraries/Technologies: jQuery, Bootstrap, PHP, Keras, Tensorflow, Numpy, Pandas, Scikit-learn, Computer Vision, OpenCV, Data mining, OO design, Web Development, Algorithms/Data Structures, SQL, NoSQL, Linux.

PROFESSIONAL EXPERIENCE

Software Engineer | Societe Generale, Bengaluru, India **Nov 2020 – Present**

Digital Workplace Services

- Responsible for **planning**, **designing**, **augmenting** and **building** tools, platforms and service automations in an agile collaborative team, leveraging **Hybrid Cloud** for **automation of internal processes** and improving **operational efficiency**.
- Built a **proactive data analytics platform** for performance reports and scrubbing support tickets, orchestrating **self-healing scripts and automations** through **Azure Cloud Services**.

QuizPort and WeTrack

- Designed and developed a fully **RESTful API driven universal Quiz and Anonymous Survey Platform** using **React**, **Express**, **Node** and **MongoDB**, with robust **anti-cheat** measures and **asynchronous session persistence.**
- Collaborated on augmenting an asset management platform with a task verification queue **microservice**.

PROJECTS AND CONTRIBUTIONS

Crypticket

- Designed and built a **fully Offline Capable** Cryptographic ticket and password generation and management and verification platform by using **Service Workers** and **Local Storage** caching. Built as a **Responsive** Progressive Web App (**PWA**) from the ground up using **React**, utilising **EdDSA Elliptic Curve Cryptography** for digital signature generation and verification.

MonoDAC

- Developed a **Monocular Image Depth Estimation** system by training a modified **DeepLabv3+ encoder decoder** network, utilising a **Fully Convolutional Deep Neural Network** (FCDNN), employing **Atrous Convolutions** and **Atrous Spatial Pyramid Pooling** (**ASPP**) and a modified **XCeption** feature extraction network, with **3D Point Cloud** Visualisation. Achieved an **ARD of 0.1271** and an **RMS Log of 0.072**. Developed an accompanying **web platform** supporting **real-time** wireless image capture and depth inference.

Wuasta

- Built a **Predictive Alarm Assistant** as an **Android app**, which pragmatically wakes you up at just the right time, taking into account **real-time traffic conditions** and **historical data**. It utilises **Google Maps Distance Matrix API** and a **recursive optimisation** algorithm to find the **optimal time** at which a user needs to depart from a location to arrive at another location at a predefined time.

YTrendNet

- Analysed a YouTube video interaction dataset and trained an **Artificial Neural Network** to infer how long a YouTube video stays trending by pre-processing and converting relevant features into latent space, and one hot encoding the result.

Technical Blog and Open Source

- Authored several **technical** and **philosophical posts** on **programming**, **designs**, **concepts**, and **challenging problems** I've faced.
- Open sourced the **implementations** of **novel algorithms**, **scripts**, and solutions to competitive problems.

ACHIEVEMENTS AND AWARDS

HP Code Wars | Honorary Award **Dec 2015**

- For solving the **most difficult** coding problems in the **shortest time**. Held at **Hewlett Packard Enterprise** Whitefield Campus, with over **300 teams** in attendance.
- Received an on the spot conditional job offer post-graduation.

InGenius Hackathon | 1st Place Award **Sep 2017**

- For **Triangle**, a **geo location distance vector** based **Android app**, a precursor to **Wuasta**, in the 1st year Category. It utilised **Google Maps Places API** to **triangulate** an **ideal meet up location** based on the locations of a group of users, and finding the **centroid**, **weighted** according to **real-time traffic conditions**.