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| **SHALAKA SATHEESH**  Female, 23-12-1995 | Bangalore-560093 (**INDIA**) | Email: [shalakasateesh@gmail.com](mailto:shalakasateesh@gmail.com) | Phone: +**91 8547055706** | LinkedIn: [www.linkedin.com/in/shalaka-satheesh-811b72102](http://www.linkedin.com/in/shalaka-satheesh-811b72102) | | | |
| **DEEP LEARNING** | **COMPUTER VISION** | **SIGNAL PROCESSING** | **BIOINFORMATICS** |

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| **WORK EXPERIENCE** | |  |  |  |  |  |  | **32 MONTHS** | |
| [**Myelin Foundry**](http://myelinfoundry.com/) | |  | **Artificial Intelligence Product Developer – Intern** | | | |  | **Sep 2019–Jul 2020** | |
| **Roles & Responsibilities** | | * Demonstrated, during validation of prototype sensor technology by extraction of Heart Rate Variability (HRV) from Photo plethysmography (PPG) signals, using **Signal Processing and de-noising** techniques like **Wavelet Decomposition** gave significantly better results compared to traditional de-noising methods. * Performed **Data Analysis** using **R** and **Python** on **unstructured biological data** for Wellness Tracking by prediction of chronic inflammation in human body with **82% accuracy**. Extracted features (using **Watershed Algorithm**) from medical image data collected from individuals and trained a **neural network** for classification of this data based on wellness scores. * Developed a **GUI** using **tkinter** for displaying the wellness score based on various non-invasive data collected from user. * **Despeckling** of synthetic aperture radar (**SAR**) **images** by using a deep neural network. * Involved in research for:   + **Automation of data set creation** for **training neural networks** for **semantic segmentation**. | | | | | | | |
| **Accenture Solutions** | |  |  | **Software Engineer** | |  |  | **Sep 2017–May 2019** | |
| **Roles & Responsibilities** | | * Managed the development and testing across all the stages of the **project life cycle** for a banking client using **agile** methodology. * Analyzed feasibility and automated testing of the Software Applications (**JAVA** framework) using TOSCA test suite and **Selenium**. | | | | | | | |
| **Achievements** | | * **Star of the Quarter** (2018), for exemplary performance resulting in significant impact to the client. | | | | | | | |
| **PROGRAMMING LANGUAGES, TOOLS & LIBRARIES** | | | | | | | | | |
| * **Python** | * **C++** | * **R** | * **SQL** | * **MATLAB** | * **Tensor Flow** * **tkinter** | * **matplotlib** * **scikit-learn** | * **pandas** * **numpy** | * **GitHub** |  |
| **ACADEMIC PROFILE** | | | | | | | | | |
| **Master of Science** | | Hochschule Bonn-Rhein-Sieg  **Subject: Autonomous Systems** | | | | | **Ongoing (Semester 1)** | **Nov ’20 - Present** | |
| **Bachelor of Technology** | | College of Engineering Trivandrum, University of Kerala  **Subject: Applied Electronics and Instrumentation** | | | | | **CGPA: 8.0/10.0**  **First Class with Distinction** | **Aug ‘13–May ‘17** | |
| Class XII | | Carmel Girls’ H.S.S., Trivandrum (India) | | | | | **95.4%** | **Jun ‘12–Mar ‘13** | |
| **AWARDS & ACHIEVEMENTS** | | | | | | | | | |
| **Academic**  **Achievements** | | * **Central Sector Scholarship** by the **Government of India** for coming above 80th percentile in HSE | | | | | |  | **2013** |
| * **Calicut District Award** for securing A+ in SSLC examination | | | |  |  |  | **2011** |
| **CERTIFICATIONS, PROJECTS & TRAININGS** | | | | | | | | | |
| **Languages** | | * **English (CEFR Level: C1)** | | | * **German (CEFR Level: B1)** | |  |  |  |
| **Hochschule Bonn- Rhein-Sieg** | | * **Mathematics for Robotics and Control (All projects implemented in Python)** * Implemented:   + A **Face Recognition** model by using **Eigen Faces**   + A [surface reconstruction](http://hhoppe.com/recon.pdf) model by using **Tangent Plane Estimation**   + A model to estimate the pose of a robot from its distance using the **Jacobian**.   + A line/table detection model using **SVD**   + A **Naïve-Bayes Classifier** for predicting successful placement of objects   + A **Recursive Bayesian Filter** for updating the measurement of Temperature measurement system   + A **Recursive Bayesian Filter** for updating the recognized emotion from an Emotion Detecting Robot. | | | | | |  | **Nov ’20 –**  **Jan ‘21** |
| * **Artificial Intelligence (All projects implemented in Python) – Graded 1.3**   + Implemented **Breadth First Search**, **Depth First Search** and **Iterative Deepening Search** for a Path Finding Problem   + Solved the 8-Puzzle by implementing **A\*** and **Greedy Search Algorithms** (heuristics used – **Manhattan Distance** and   **misplaced tiles**)   * + Solved the Travelling Salesman problem by implementing the **Hill Climbing Algorithm** | | | | | | | **Nov ’20 –**  **Jan ‘21** |
| * **Advanced Software Technology (Implemented in Python)**   + Developed a simulation of a prototype warehouse whose functionalities included collection, storage (maintenance) and disposal of storage items.   + Tested the prototype of the warehouse using [Behave](https://pypi.org/project/behave/#%3A~%3Atext%3Dbehave%20is%20behavior-driven%20development%2C%20Python%20style.%20Behavior-driven%20development%2Cnatural%20language%20style%2C%20backed%20up%20by%20Python%20code) | | | | | | | **Dec ‘20** |
| * **Introduction to Scientific Working**   + Currently working on creating an annotated bibliography of Top 30 works in the field of **ML** with a focus on **NLP** | | | | | | | **Ongoing** |
| **College of Engineering Trivandrum (CET)** | | * **Project: Autonomous Garbage Collecting Robot** (**Awarded 4th in Inter-department Project Expo**)   Functionalities enabled: autonomous identification, collection and transportation of garbage bins to a centralized location for waste disposal along a predefined route.  Key technologies: **Computer Vision (Viola-Jones object detection framework)**, **Internet of Things** and  **Autonomous Systems**. Built on**: Raspberry Pi 3 Model B+** | | | | | | | **2016-17** |
| * **Project: Line follower robot**   Developed an **Arduino** based robot that follows a black line marked on a white surface. | | | | |  |  | **2013** |
| **MOOCs** | | * **Neural Networks and Deep Learning** by deeplearning.ai * **Fundamentals of Deep Learning for Computer Vision** by **NVIDIA** Deep Learning Institute * **Python for Data Science and AI** by **IBM** | | | | | | | |
| **EXTRA-CURRICULAR ACTIVITIES** | | | | | | | | | |
| **Accenture** | | * CSR (**Corporate Social Responsibility**) Volunteer | | | |  |  |  | **2017-19** |
| **CET** | | * Membership in **IEEE, Robotics Club** & Entrepreneurial Development Cell | | | | |  |  | **2013-17** |
| * Editor-in-Chief of College Newsletter, Voyage | | | |  |  |  | **2016-17** |
| **Others** | | * Hobbies: Appreciating Art, Poetry and Historical Fiction | | | | | | | |
| **REFERENCES** | | | | | | | | | |
| * **Dr. Vrinda V. Nair**   Dean (Research)  APJ Abdul Kalam Technological University, Trivandrum, India Phone: +91 94473 81186 | Email: [deanresearch@ktu.edu.in](mailto:deanresearch@ktu.edu.in) | | | |  | * **Anusha Rammohan**   Senior Technology Leader Myelin Foundry, Bangalore, India  Phone: + 91 9739012816 | Email: [anusha.rammohan@myelinfoundry.com](mailto:anusha.rammohan@myelinfoundry.com) | | | |  |