



## AJAY KAARTHIC J

+91-9962592422 | [ajay.kaarthic@gmail.com](mailto:ajay.kaarthic@gmail.com) | <https://www.linkedin.com/in/ajay-kaarthic-j>

### EDUCATION

#### **Sri Venkateswara College of Engineering, Chennai, India**

Bachelor of Technology in Information Technology, CGPA: 8.83 / 10.0

Aug 2016 - Oct 2020

- Course work: Data structures, OS, DBMS, Object Oriented Analysis & Design, Automata & Compiler Design

### TECHNICAL SKILLS

**Programming Languages:** Python, C, C++, Javascript, SQL, Perl

**Machine Learning Frameworks:** OpenCV, TensorFlow, Scikit-learn, NumPy, Pandas

**Web Technologies and Tools:** Node.js, GraphQL, JIRA, Perforce

### PROFESSIONAL EXPERIENCE

#### **Associate Software Engineer – athenahealth, Chennai**

Oct 2020 - Present

- Part of an interoperability team responsible for addressing 21 Century Cures act, building GraphQL servers and endpoints to resolve requested data from FHIR servers conforming to **80%** US Core resources.
- Designed, developed, and tested a feature for providers to delegate administrative work to non-providers, enabling the providers to focus on functional responsibility.

#### **Software Engineering Intern – athenahealth, Chennai**

Jan 2020 - Oct 2020

- Developed a feature for healthcare providers to easily attach files to a patient chart.
- Developed a UX feature that reduces the chances of error for BPO agents by **10%**.
- Designed and developed a prototype search engine using Elasticsearch, GraphQL and AWS for Physicians.
- Developed a prototype to recognize handwritten text using Mxnet with **82%** accuracy.

#### **Freelance AI Consultant - Dforth technologies, Chennai**

June 2019 - Jan 2020

- Solely built a Computer Vision system** for *swingzen.com* with PoseNet and TensorFlow to analyze golf player's swing action and tracking the trajectory of the golf club.
- Achieved **89%** accuracy in the validation set.
- The app was presented at the **PGA** show, USA.

Jan 2020

#### **Summer Intern - Siemens Ltd, Chennai**

May 2019 - June 2019

- Automated pre-processing and postprocessing for FEA in Ansys using Python saving **20 mins/person**.
- Developed a distributive software to extract data from pdf and feed it to Excel.

### RESEARCH PROJECTS AND PAPER PUBLICATIONS

#### **Forecasting Covid 19 cases and its impact on the environment**

April 2020 - Aug 2020

- Predictive analysis for Chennai, India using time series models ARIMA, LSTM, STACK-LSTM and PROPHET.
- Examined the impact of Covid 19 cases with environment.
- Paper is under review status.

#### **Personal Fitness Management**

July 2019 - Mar 2020

- Developed a system to evaluate the correctness of an exercise using pose estimation and deployed at AWS.

#### **Autonomous Drowning Rescue System**

June 2019 - Sep 2019

- Implemented an object recognition model using YOLO to identify and locate humans who are about to drown in water and feed the result to a mechanical device that triggers a lifebuoy to rescue the target person.
- Honorable Mention** at IEEE YESIST 12, an International Innovation Challenge with participants from nearly 10 countries, held at Stamford International University, Thailand.

Sep 2019

#### **Road's Eye**

Sep 2018 - Feb 2019

- Video surveillance application for the vehicles on the road that identify vehicles violating the traffic rules using computer vision.
- Winner of Hack and Tackle**, A 24-hour Hackathon with 45 teams organized by SSN-IEEE held at SSN College of Engineering, India.
- Winner of VISAI 19**, An International Project competition and exhibition held at Vel Tech University, India and over 80 Universities participated.
- Winner of Mozo Hack**, A 36-hour Hackathon organized by Mozilla club with more than 50 teams, held at SRM University, India.
- Winner of VIVID 19**, A National level Project competition with over 100 participants from the country held at SSN College of Engineering, Chennai, India.

Feb 2019

Feb 2019

Mar 2019

Mar 2019

#### **A Survey on Cross VM Side Channel Attack in Cloud Computing:IJRAR Vol 5, Issue 3**

Sep 2018

- <http://www.ijrar.org/papers/IJRAR190B023.pdf>