

# J Keshav Bhupathy Vignesh

## WORK EXPERIENCE

### Wipro Limited

*Project Engineer (Autonomous Robots Research Team)*

Bengaluru, India

*July 2018 – Present*

- The **Software/Hardware Integration Engineer** for a **Mobile Manipulator** Project – Designed and developed a central control system that communicates with the various modules of the Robot and makes future decisions
- Also developed a **Web based Monitoring and Control System** for the above project
- Robot **Arm Motion Planning** Research
- Developed a completely **ROS compatible Simulation Testing Framework** for one of the Robot applications

### Gethu Games

*Junior Developer (Intern)*

Chennai, India

*December 2016 – January 2017*

- Designed an **AI for a mobile board game** that the user can play with
- Given the current board state the AI decides on the next optimal move and **responds in less than 50ms**
- Designed a **REST API** to support the web version of the game

## COMPETENCIES


### TECHNICAL SKILLS:

- **Languages:** Python, JavaScript, SQL, HTML, CSS, C/C++, PHP
- **Softwares and Platforms:** Robot Operating System (ROS) and related Software including Gazebo, Moveit! and RViz, Postman, TensorFlow, Git, Flask, Google Cloud Platform, MATLAB
- **Hardware Platforms Programmed** – Arduino, Raspberry PI

### OTHER SKILLS:

- **Graphics Design** –
  - Proficient in Adobe After Effects, Adobe Premiere Pro, Sony Vegas Pro & Power Director
  - Familiar with Adobe Photoshop, Blender

## NOTABLE PROJECTS

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- A physical chessboard that the user can play with, without the need of an opponent. The opponent pieces move by themselves. There are no visible moving mechanisms.  
*The software was designed primarily on Embedded C and Python. The project also involved designing cheaper alternatives to various moving mechanisms under the hood*
- **Efficient Home Energy Management and Intelligent Temperature Control System using Deep Learning**  
*Tools Used: Python, SQLite, Raspberry Pi, HTML5, JQuery, Bootstrap, Flask*
- **Tamil Handwritten Character Recognition using Deep Learning**  
*Tools Used: Python, TensorFlow, JQuery, Bootstrap, Flask*
- **A game theoretical approach to solve Network Congestion**  
*Tools Used: C++, NS2*
- **Traffic Optimization using a rudimentary ant colony optimization technique**  
*Tools Used: C++*

## EDUCATION

### B.Tech Computer Science and Technology

- Vellore Institute of Technology

**2014 – 2018**

CGPA – 9.23 / 10.00

## PERMANENT ADDRESS

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## ACHIEVEMENTS

- Won the **second prize in the Open house competition** conducted by the **Computer Science and engineering department** for a project
- **School First** in class X and XII board examinations

## LANGUAGES KNOWN

English, Tamil, Malayalam, Kannada

## POSITIONS OF RESPONSIBILITY

- The head of the College Dramatics club script team
- Head of the cinematography team of the college MOOC initiative
- Video Editor for various technical and cultural fests conducted in the college including the TEDx Event

## OTHER INTERESTS

- Film Making
- Game Development
- Magic
- Graphics/VFX