

# SHREYAS RAMAKRISHNA

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## EDUCATION

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| <b>Vanderbilt University</b><br>Ph.D. in Electrical Engineering<br>Research Affiliation: Institute for Software Integrated Systems<br>Overall GPA: 3.7/4    | <i>Nashville, Tennessee</i><br><i>Aug 2017 – Present</i> |
| <b>Technical University Kaiserslautern</b><br>Masters in Electrical engineering and Information Technology<br>Overall GPA: 3.65/4 (Converted German grades) | <i>Kaiserslautern, Germany</i><br><i>June 2015</i>       |
| <b>Visvesvaraya Technological University</b><br>Bachelor of Electrical and Communication Engineering<br>Overall percentage: 84                              | <i>Bangalore, India</i><br><i>July 2012</i>              |
| <b>Coursework:</b> Machine Learning, Reinforcement Learning, Cyber Physical Systems, Embedded Systems, Distributed Systems, Operating Systems, Networking.  |  |

## PROFESSIONAL EXPERIENCE

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| <b>Apsis Solution</b><br><i>Embedded Design Engineer</i>   | <i>Bangalore, India</i><br><i>Sep 2015 – March 2017</i> |
| <ul style="list-style-type: none"><li>Designed Embedded Software for several military and commercial products.</li><li>Involved in integration and software testing of embedded platforms.</li><li>Experience with programming embedded platforms like PIC, ARM, and Raspberry Pi.</li></ul> |   |
| <b>MasterSkills Learning Solutions</b><br><i>Research Intern</i>   | <i>Bangalore, India</i><br><i>Feb 2012 – May 2012</i>   |
| <ul style="list-style-type: none"><li>Intern project “Mixed mode Real-time VLSI implementation of a shunting inhibition cellular neural network”.</li><li>Involved in designing circuits, VHDL code development, and testing.</li></ul>  |   |

## PHD RESEARCH

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|---|---------------------------|
| <b>DARPA Assured Autonomy</b>   | <i>March 2018-Present</i> |
| <ul style="list-style-type: none"><li>Designed tools for system-level safety assurance and dynamic risk assessment of autonomous vehicles.</li><li>Designed deep learning regression and classification controllers, and time-series anomaly detectors.</li><li>Involved in designing automation tools for design, development, and testing of autonomous robot testbeds.</li><li>Experience with simulators like TORCS, CARLA, and real datasets like NuScenes, Ford, and Waymo.</li></ul> |                           |

## TEACHING EXPERIENCE

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|--|-----------------|
| · Introduction to Computer Engineering | <i>Aug 2017</i> |
| · Operating System                     | <i>Jan 2018</i> |
| · Resilient Distributed System         | <i>Aug 2018</i> |

## TECHNICAL SKILLS

|                             |   |
|-----------------------------|---|
| <b>Programming</b>          | Python, C, and Java (basic).  |
| <b>Machine learning</b>     | TensorFlow, Pytorch, Keras, Numpy, Scipy, and Scikit-learn.               |
| <b>Cloud &amp; Database</b> | Amazon Web service, Google Cloud platform, MongoDB, and InfluxDB.         |
| <b>Hardware Platforms</b>   | Raspberry Pi, NVIDIA Jetson, PIC and ARM Cortex M3.                       |
| <b>Tools &amp; Editors</b>  | Spark, Docker, Jupyter, Conda, PyCharm, Git, Latex, and Microsoft Office. |
| <b>Operating Systems</b>    | Windows, Linux, and MAC OS X.   |

## ACHIEVEMENTS

- Publication “Augmenting Learning Components for Safety in Resource Constrained Autonomous Robots.” nominated for best paper at ISORC 2019.
- Awarded tuition scholarship for undergraduate studies by the Ministry of HRD, Govt. of India.