

# SHREYAS RAMAKRISHNA

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## EDUCATION

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<b>Vanderbilt University</b> Ph.D. in Electrical Engineering Research Affiliation: Institute for Software Integrated Systems Overall GPA: 3.7/4	<i>Nashville, Tennessee</i> <i>Aug 2017 – Present</i>
<b>Technical University Kaiserslautern</b> Masters in Electrical engineering and Information Technology Overall GPA: 3.65/4 (Converted German grades)	<i>Kaiserslautern, Germany</i> <i>June 2015</i>
<b>BNM Institute of Technology (VTU Affiliated)</b> Bachelor of Electrical and Communication Engineering Overall GPA: 84%	<i>Bangalore, India</i> <i>July 2012</i>

**Coursework:** Machine Learning, Reinforcement Learning, Cyber Physical Systems, Embedded Systems, Distributed Systems, Operating Systems, Networking.

## PROFESSIONAL EXPERIENCE

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<b>Siemens Corporate Technology</b> <i>Research Intern</i>	<i>Princeton, NJ, USA</i> <i>May 2021 – Aug 2021</i>
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- Worked on the "DARPA ARCOS Project" to automate Assurance Case for System Certification.

<b>Apsis Solutions</b> <i>Embedded Design Engineer</i>	<i>Bangalore, India</i> <i>Sep 2015 – May 2017</i>
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- Designed Embedded Software for several military and commercial products.
- Involved in integration and software testing of embedded platforms.
- Experience with programming embedded platforms like PIC, ARM, and Raspberry Pi.

## PHD RESEARCH

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<b>DARPA Assured Autonomy</b>	<i>March 2018-Present</i>
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- Designed tools for system-level safety assurance and dynamic risk assessment of autonomous vehicles.
- Designed deep-learning and reinforcement-learning controllers, and time-series anomaly detectors.
- Involved in designing automation tools for design, development, and testing of autonomous robot testbeds.
- Experience with automotive simulators like TORCS, CARLA, and real datasets like NuScenes, Ford, and Waymo.

## 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

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<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

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- 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.