

# Pranav Kumar

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## EDUCATION

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MAY 2021 **BS in Computer Science, Carnegie Mellon University**  
(Anticipated) RELEVANT COURSEWORK:  
15-122 - Principles of Imperative Programming  
15-151 - Mathematical Foundations for Computer Science

## WORK EXPERIENCE

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SPRING 2018 **Teaching Assistant** for 15-122 Principles of Imperative Computation  
• Future TA for 15-122

MAY 2016 **Intern at Cerner Corporation**  
• Synced client and server data with PHP and JavaScript for Smart Health, a cross-platform mobile application to track adolescent health  
• Laid foundation for internationalization of the entire application using JSON to store key words for easy translation between languages

2014 - 2015 **Student Developer at Mediawiki Foundation**  
• Worked on open source applications such as Wikipedia, Mediawiki, etc.  
• Learned Git, PHP, and the practice of code review in the process

## PROJECTS AND EXTRACURRICULARS

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SEPTEMBER 2017 **RoboBuggy**  
- PRESENT  
• RoboBuggy is an autonomous vehicle which is a competitor in the annual buggy races at CMU  
• Member of infrastructure development team and software representative  
• Use ROS, C++, and Python to build infrastructure to drive the buggy

SEPTEMBER 2017 **Ugly Duckling at HackCMU 2017**  
• Won Google's "Best Use of Machine Learning" Award, \$1000 cash prize at CMU 50th anniversary celebration  
• Created an autonomous, deep-learning based robotic camera operator to follow a person using facial recognition

JULY 2016 **Multi-robot pathfinding** at Stanford University  
• Created a multi-robot pathfinding optimization program at Stanford Pre-Collegiate Summer Institutes  
• Implemented in Python using a coupled approach and BFS, DFS, Dijkstra's, and A\* algorithms

## TECHNICAL SKILLS

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**Languages** Python, C, Java, JavaScript  
**Applications** Git, Vim  
**Technologies** ROS

## HONORS AND ACHIEVEMENTS

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**Best Use of Machine Learning** award by Google at HackCMU 2017  
**Top in Country** and **Top 5 in World** in Cambridge AS and A level Computer Science