

# Pranav Kumar

SYSTEMS DEVELOPER

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## Education

### Carnegie Mellon University

Pittsburgh, Pennsylvania

B.S. IN COMPUTER SCIENCE - MINOR IN MACHINE LEARNING (QPA: 4.00)

Aug. 2017 - May 2021

- **Dean's List** - all semesters
- **Relevant Coursework:**
  - 15-213: Introduction to Computer Systems
  - 10-315: Introduction to Machine Learning
  - 15-411\*: Compiler Design

## Work Experience

### Facebook

Seattle, Washington

PRODUCTION ENGINEERING INTERN

May 2019 - Aug 2019

- Developed a build automation service for regression detection and parallel building of binaries
- Enabled multiple asynchronous builds, improving firefighting efficiency by more than 10x

### Petuum Inc.

Pittsburgh, Pennsylvania

SOFTWARE ENGINEERING INTERN

Jun. 2018 - Aug. 2018

- Developed a backend datapull API using MariaDB and Django for ML engineers to use while training models
- Used Apache Kafka to integrate real-time streaming data with ML model
- Improved model inference runtime from 30+ minutes to 90 seconds (20 times speedup)

### Carnegie Mellon University

Pittsburgh, Pennsylvania

HEAD TEACHING ASSISTANT - 15-122 (PRINCIPLES OF IMPERATIVE PROGRAMMING)

Jan. 2018 - Present

- Teach labs and recitations for the introductory programming class at CMU (450+ students)
- Grade homework and host office hours for students

## Projects & Extracurriculars

### No Duckling Is Ugly (PennApps '18)

Philadelphia, Pennsylvania

CO-DEVELOPER

Sep. 2018

- Developed an IoT based anti-bullying system using sentiment analysis and NLP at PennApps 2018
- Built from scratch on a Qualcomm Dragonboard 410c - used MongoDB, Perspective, and various REST APIs
- Awarded the Best IoT Hack and Best Education Hack

### RoboBuggy

Pittsburgh, Pennsylvania

SOFTWARE CO-LEAD

Aug. 2017 - Sep. 2018

- RoboBuggy is an autonomous vehicle competing in the annual buggy races at CMU
- In charge of setting up the ROS and logging systems during rolls and firefighting software failures in the buggy
- Used ROS, C++, and Python to build infrastructure to drive the buggy

### Ugly Duckling (HackCMU '17)

Pittsburgh, Pennsylvania

CO-DEVELOPER

Sep. 2017

- An autonomous, deep-learning based robotic camera operator designed to follow and record a person using facial recognition
- Awarded Best Use of Machine Learning by Google
- Awarded \$1000 cash prize at CMU 50th anniversary celebration, as well as funding from CMU Board of Trustees

## Honors & Awards

2018 **Best Education Hack**, PennApps

Philadelphia

2018 **Best IoT Hack**, PennApps

Philadelphia

2017 **Best Use of Machine Learning**, HackCMU

Pittsburgh

2017 **Top 5 in World**, Cambridge International A Level Computer Science

Bangalore

## Technical Skills

**Programming and Scripting:** C · Python · Java · JavaScript · SML · x86-64 · OCaml\*

**Technologies and Applications:** Git · Vim · ROS · Django · NumPy · REST · UNIX · Docker · MySQL · Apache Kafka