Pranav **Kumar**

Full Stack Developer · Hacker

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Education

Carnegie Mellon University — *Pittsburgh, Pennsylvania*

B.S. in Computer Science - Intended 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 · HTML/CSS

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