Aragya Goyal

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EDUCATION

University of Pittsburgh   Pittsburgh, PA
B.S. - Computer Engineering (Autonomous Systems Focus); **GPA: 3.99**   *August 2022 - April 2026*

SKILLS

- **Languages:** Python, PHP, C++, JavaScript, SQL, Bash, JAVA
- **Frameworks:** Scikit, NLTK, SpaCy, TensorFlow, Keras, Django, Flask, NodeJS, LAMP
- **Tools:** GIT
- **Platforms:** Linux, Web, Windows, Arduino, Raspberry, AWS, GCP, Alibaba Cloud, IBM Cloud
- **Soft Skills:** Leadership, Event Management, Writing, Public Speaking, Time Management

RELEVANT EXPERIENCE

- **Carnegie Mellon University - Robotics Institute**   Pittsburgh, PA
  Undergraduate Researcher (Part-time, Summer Internship)   *April 2023 - Present*
  - **Discussion Forum Upgrades**: Refactor forum for performance to handle large databases.
  - **REST API for Discussion Forum**: Symphony & Twig based Forum parts converted to API-first interface.
  - **Ratchet PHP WebSocket**: Implemented a WebSocket for low-latency real time exchange of posts and thread updates.

- **Society of Astronautics and Rocketry**   Remote
  Chief Engineer (Student Club)   *August 2022 - Present*
  - **Project Course - Find Movie Similarity from Plot Summaries**: Created project based course using Unsupervised learning and natural language processing.
  - **Tutorial - Introduction to Reinforcement Learning**: Created tutorial for Q-learning RL algorithm and concepts.
  - **Impact**: Course has been taken by 250+ students so far with 4.65 average rating.

PROJECTS

- **Vison - multimedia search engine (NLP, Search Engine, Web Crawlers, Multimedia Processing)**: (Work in progress) Research oriented, open source, search engine for bringing reverse multimedia search to small & mid scale enterprises. Tech: Python, NodeJS, Intel OpenVino Toolkit, Selenium, TensorFlow (October '18)

- **Reinforcement Learning based Traffic Control System (Reinforcement Learning, Computer Vision)**: AI model to resolve city traffic around 50% faster. Tech: Python, Alibaba Cloud, Raspberry Pi, Arduino, SUMO & OpenCV. (August '18)

- **Panorama from Satellite Imagery using Distributed Computing (Distributed Computing, Image Processing)**: Images clicked using drones, provided by ISRO were stitched together using distributed public compute nodes, effectively bringing down processing time exponentially. Tech: PHP, C++, Java, Python (March '18)

- **Drag-n-drop machine learning learning environment (Web Development, Machine Learning)**: Scratch like tool for implementing machine learning pipelines along with built in tutorial for each concept. Tech: Python, JavaScript (September '18)

- **Search Engine and Social Network(Web Development, Web Crawler, Search)**: Created from scratch a social network and a search engine based on the idea of integrating Facebook and Google. The launched website was among top 1000 websites in India during 2012-2013. Tech: PHP, MySQL, HTML, CSS, WebSockets, JavaScript, RSS, XML (May '12)

PUBLICATIONS

- **Book: Deep Learning on Web (Web Development, Deep Learning)**: Work in Progress book to be published by Packt Publishing in late 2019. Tech: Django, Python, AWS, GCP, Azure (November '18)

- **Book: Deep Learning on Mobile Devices (Flutter App Development, Deep Learning)**: Work in Progress book to be published by Packt Publishing in late 2019. Tech: Flutter, Android, Firebase, TensorFlow, Python, Dart (December '18)

HONORS AND AWARDS

- Awarded title of Intel Software Innovator - May, 2019
- Second Runner's Up at TCS EngiNx Engineering Project Innovation Content - September, 2018
- Runner's Up at Facebook Developers Circle Hackathon - August, 2017

VOLUNTEER EXPERIENCE

- **Community Lead at Developer Student Clubs NSEC**   Kolkata, India
  Conducted online and offline technical & soft-skills training impacting over 3000 students.   *Jan 2019 - Present*

- **Event Organizer at Google Developers Group Kolkata**   Kolkata, India
  Organized events, conducted workshops and delivered workshops reaching over 7000 developers.   *Jan 2018 - Present*