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, C++, ARM Assembly
- **Technologies**: Linux, ROS, Github, Solidworks, MATLAB, Microsoft Products, Arduino, Raspberry Pi, OpenCV
- **Manufacturing**: Milling, Soldering, Laser Cutting, General Shop Tools

RELEVANT EXPERIENCE

- **Carnegie Mellon University - Robotics Institute (Biorobotics Lab)**   Pittsburgh, PA
  Undergraduate Researcher (Part-Time)   *April 2023 - 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.

- **Society of Astronautics and Rocketry**   Pittsburgh, PA
  Chief Engineer (Student Led Organization)   *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.

- **Formula SAE - Panther Racing**   Pittsburgh, PA
  R&D Engineer (Student Led Organization)   *August 2022 - March 2024*
  - **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.

- **UPMC - Laboratory of Ocular Biomechanics**   Pittsburgh, PA
  Undergraduate Researcher (Volunteer)   *January 2023 - May 2023*
  - **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.

- **FIRST Robotics**   Exton, PA
  Undergraduate Researcher (Volunteer)   *January 2023 - May 2023*
  - **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.

- **VEX Robotics**   Royersford, PA
  Undergraduate Researcher (Volunteer)   *January 2023 - May 2023*
  - **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.

TECHNICAL 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)

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