Ribhav Kapur

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About me

I love working in different areas of technology, specially in the Artificial Intelligence domain and enjoy learning new ways of doing things and understanding why they work. I work well with teams that are fast paced and offer challenging work.

Experience

Co-Founder
Connct (Jan 2019 - Jan 2020)
- Developed a web app to aid and automate work social media influencers do on a daily basis.
- Heavy use of computer image understanding and natural language processing done manually.
- Familiarity with many APIs such as google's vision, NLP, Facebook's graph API, etc and used MongoDB.
- Pitched to investors and secured an offer for $200k in 2 months with a $2 Million valuation.

Co-Founder
DreamTune (Jan 2020 - July 2020)
- Web app to help public rights organisations identify and gather evidence against illegal use of copyrighted content.
- Made the process exponentially more efficient while requiring a fraction of the employees.
- Incorporated CI/CD for testing and development infrastructure
- Development in React and used various libraries in javascript for web scraping for data collection.
- Acquisition interest from Dataclef but not made headway till now due to the global pandemic.

Teaching Assistant
UofT AI (May 2019 - Sept 2019)
- Worked on the syllabus for the introduction to AI course.
- Created video lectures for remote learning.

Software Engineer
Robotics for Space Exploration (RSX) (Jan 2018 - June 2018)
- Worked on the spacial awareness for the UofT Mars rover. Used Ross Kinetic, and specifically RTabMap for this.
- Involved using python for object detection, foreground and background differentiation and distance approximation.

Peer Mentor
University of Toronto (Jan 2019 - May 2019)
- Was selected in my Theory of Computation class to hold sessions weekly to help students with assignments and course material.

EDUCATION

University of Toronto - 2017-2021
Honours in the Bachelor of Science
- Computer Science Specialist (equivalent in credits to a double major)
- Focus in Artificial Intelligence.
- Mathematics Minor

Yearly GPA	
CGPA	3.47
Year 1	3.83
Year 2	2.67
Year 3	3.79

PROJECTS

Generating Realistic Human Faces and Heads from Emojis and Stickers (May 2020 - Aug 2020)
- Research project including extensive use of image understanding concepts, like scale and rotation invariant feature detection, localisation and matching, are used in the framework of a Deep Convolutional Generative Adversarial Network (DCGAN) to make the outputs more realistic.
- Researched the performance of Variational autoencoders and Adversarial autoencoders in style-transfer
- Deep understanding of underlying image structures required to teach a computer to create novel, realistic images.

Security Drone (Feb 2019)
- Autonomous GPS enabled drone to replace students who escort other students at night across campus.
- Image processing for obstacle and facial detection done on server since something on the drone wouldn't be powerful.
- Arduino flight controller coded from scratch in C#.

Virtual Trainer (May 2018)
- Fitness app to generate unique workouts to target functions and areas of different muscle groups optimally.
- AI to determine body type based on picture and customise workout programs accordingly.

My Website (2017)
- Basic website made during my first year to show my projects, grades, socials, etc. Make from scratch in vanilla JavaScript, HTML and CSS.

HACKATHONS

- MakeHarvard 4th place for security drone mentioned above
- Orbis Challenge top 5 for game winning AI that plays splix.io

SKILLS

- Experienced in Python, C, JavaScript, Java and familiar with swift.
- Experienced with various APIs, and more importantly, comfortable with navigating APIs and documentation.
- Extremely adaptable and a quick learner as demonstrated by my work in my startups.
- Inquisitive and always question and understand the significance of every step in any project.