Sohini Kar

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Massachusetts Institute of Technology

Major: Computer Science and Brain and Cognitive Science *(joint major)* August 2018 - Present

Skills

Computer Languages: Python, Java, Matlab, Julia, LaTeX, HTML, CSS, Javascript

Technologies and Libraries: OpenCV, Tensorflow, Numpy, PyTorch, Tesseract, Elasticsearch, Docker, ReactJS, Material UI, Kubernetes, Scrapy, Grafana, Logstash, Keras

Languages: English, Bengali, Spanish, Hindi

Experience

Securiti.ai
San Jose, CA

Machine Learning Extern *December 2019 – January 2020*

- Trained language models and specified corpus of texts to generate own versions of the texts, examined effects of various parameters such as model size on quality of outputs
- Used Tensorflow, and gained experience with machine learning, NLP, and RNNs

NASA Jet Propulsion Laboratory
Los Angeles, CA

Software Engineering Intern, Search Team *June 2019 – August 2019*

- Developed a tool to find similar images based on image features and page context using Python, OpenCV, and Tensorflow, used Scrapy to scrape and index images into Elasticsearch
- Created image search engine front-end using React.js to query for images from Elasticsearch cluster with 10,000+ images for use by 6,000+ people at JPL
- Recreated and optimized the internal image search engine to include results based on content of images rather than just context, added interactive features such as clickable tags

Vision Research Lab at MIT
Boston, MA

Undergraduate Researcher, Sinha Lab for Vision Research *February 2019 - present*

- Analyzed videos of Project Prakash children's eyes using computer vision techniques and feature tracking to quantify the extent of eye movements exhibited before eye surgery, as well as different time points after
- Used computer vision library OpenCV in Matlab and Python

Palo Alto Networks
Santa Clara, CA

Software Quality Assurance Intern, PanOS *June 2018 – August 2018*

- Created Python scripts to detect anomalies in the PanOS longevity tests to enhance the customer alerting system Elastalert using optimized thresholds

Leadership and Awards

Campus Involvement: High School Off-Campus Chair of MIT Society of Women Engineers (SWE), Consulting Chair of Women Business Leaders, Director of Business for MIT Model UN, Publicity Chair of Maseeh Hall, Board Member of Machine Intelligence Committee

Volunteering and Memberships: President and Founder of Art and Craft 4 All, Inc (501(c)3 nonprofit), Rewriting the Code Fellow, SWE Collegiate Leadership Institute

Awards: Regional Finalist for Siemens Competition 2017, The President's Volunteer Service Award Gold 2017+2018, The Congressional Award Gold Certificate 2018, National Merit Scholarship Winner 2018