

# Surya Ambardar

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*Driven AI and biology student with 3 years of experience turning industry problems into data-driven solutions*

## EDUCATION

- **University of Virginia**, expected graduation in **May 2022**
- Dual major in **Computer Science & Biology** with **3.9 GPA**; [Echols Scholar](#)

## TECHNICAL SKILLS

- **AI/Machine Learning:** TensorFlow, Keras, SciKit-Learn, PyTorch, Weights and Biases, Jupyter Lab, AWS
- **ML Domains:** Computer Vision, Clustering & Classification, Statistical Modeling, Quantitative Analysis, NLP
- **Data Analytics & Visualization:** R, NumPy, Pandas, SciPy, Excel, Tableau, Matplotlib
- **Languages:** Python, Java, C++, SQL, R, Git
- **Biological:** PCR, Western Blot, Southern Blot, Mammalian Cell Culture

## EXPERIENCE

**AI Engineering Intern** | Thermo Fisher Scientific, Carlsbad CA

**May 2021 - Aug 2021**

- **Created a training dataset** from limited cell plate images, developed a custom U-Net computer vision model to identify viable stem cells, and optimizing the model to perform on a microscope **in less than 3 seconds**.
- Deploying stem cell identification model to two edge devices, Nvidia Jetson Nano and Intel Tiger Lake, using an AWS pipeline including S3 bucket, Sagemaker Neo, Edge Manager, and MLFlow to analyze metrics.

**AI Researcher** | Space ML, Remote

**July 2020 - Feb 2021**

- Built, optimized, and integrated a meteor classifier LSTM model trained on night sky light sources, a key part of the NASA-funded [CAMS](#) project, which aims to identify unknown meteors and predict their parent bodies.
- Developed a unique data augmentation technique which **increased precision and recall to 95%** from the original 65%. This work was the basis for my paper presented at [EGU 2021](#), an **international AI conference**.

**AI Researcher** | Open Source, Remote | Mentors: [Anirudh Koul](#), [Siddha Ganju](#)

**May 2020 - July 2020**

- Constructed a CNN-LSTM pedestrian trajectory prediction model trained on a pedestrian video dataset with time-series accelerometer annotation. Aiming to assist blind pedestrians, this model was developed to show how **AI can be used for social good**, and preliminary results were presented at **CVPR 2020**, a top AI conference.

**Team Leader** | MIT GrandHack, DC

**Aug 2019**

- Designed a remote asthma monitoring device inspired by continuous glucose tracking in diabetes patients which could eliminate **up to 60% of preventable ER visits** for asthma patients by detecting anomalous airflow patterns.
- **Won runner-up** in Access to Healthcare, leveraging domain knowledge from pulmonologists on my team.

**Researcher** | Radify Labs, Charlottesville VA

**May 2019 - July 2019**

- Built a pipeline for heart disease patient data with Numpy and Pandas, using Tableau to visualize trends. Constructed random forest diagnosis models using Tensorflow and Keras, **reaching 85% diagnosis accuracy**.

## AWARDS & MEMBERSHIPS

- Winner of 2020 UVA Deloitte Case Competition
- Finalist in 2019 [TEDxUVA](#) speaker competition
- Runner-up of 2019 MIT GrandHack DC
- Developer and Writer for [UVA ML Club](#)

## CERTIFICATIONS & PUBLICATIONS

- Primary author of [“It’s a Bird, It’s a Plane, It’s a Meteor!”](#) presented at EGU 2021, an international AI conference
- [AWS Certified Cloud Practitioner](#) | Issued June 23, 2021; Expires June 23, 2024