

ABHINANDAN DUBEY

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HackerRank : <https://www.hackerrank.com/alivcor> | **GitHub** : <https://www.github.com/alivcor>

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EDUCATION

Stony Brook University - MS in Computer Science

Dec. 2017

Courses : Computer Vision, Analysis of Algorithms, Artificial Intelligence, Big Data Analytics, Natural Language Processing, Visualization & Visual Analytics, Data Science, Computer Graphics. | **Specialization : Computer Vision**

New York, USA

Birla Institute of Applied Sciences - B.Tech. (Honors) in Computer Science & Engineering

2012-16

Uttarakhand Technical University | First Division with Honors, College Topper

Nainital, India

RESEARCH EXPERIENCE

Graduate Student Researcher | **Human Interaction Lab** | Stony Brook University

Spring 2017

- Working on "Using Weakly Supervised Segmentation Methods for Fetching Insights from Biological Cell Division Process"

Innovator | **Innovating For Billions - REDx** | **MIT Media Lab**

January 2016

Research Publications

- Human-in-the-loop Biomedical Segmentation Annotation
Association for Computing Machinery - SIGCHI'2018 (In progress). Fall 2017
- CNN Based Yeast Cell Segmentation in Multi-Modal Fluorescent Microscopy Data
CVMI - Proceedings of IEEE Conference on Computer Vision & Pattern Recognition (CVPR). Spring 2017
- Classification of CKD Cases Using MultiVariate K-Means Clustering
International Journal of Scientific & Research Publications - Volume 5, Issue 8 Fall 2015
- A Simplified Analysis To a Generalized Restricted Partition Problem**
PRINCIPIA - Princeton Undergraduate Maths Journal, Princeton University Winter 2015

WORK EXPERIENCE

Summer Analyst Intern | **Nomura Securities, New York City**

Jun - Aug 2017

Risk Technology - Risk Datawarehouse | Data Management

- Developed FLO - Firm Lineage Orchestration - a Lineage Tracking Tool using Flask & D3js which dynamically generates dendograms from logs weighted by the amount of data flow between various data providers & consumers of datawarehouse
- Developed a bespoke TeaToken Authenticator & Process Spawner which allows Resource Monitoring & Throttling to integrate with JupyterHub which serves notebooks to the BU team. Also migrated the team to GitLab, &
- Developed module for sharing DataFrames across JupyterHub notebooks through memory-mapped files.
- Developed module for processing & seamless translation b/w in-memory DataFrames to Parquet Hadoop ecosystem.

PROJECTS

More on [GitHub](#)

Mosaicing of Aerial Images - Estimating transformations from the image points

A system that maps the correspondences in two images, warps and merges images into a mosaic which provides a larger FOV.

Video Thread Background Scene Classification with VGG16 Features Using Convolutional Neural Networks

Implemented CNN which extracts features from VGG16 Network and predicts the background scene with an accuracy of 81%

DeepScore & UnTraSE : A Two-Fold Exploratory Study on AES

A state-of-the-art research on trait-specific automated essay grading using deep learning, LSTMs, and unsupervised approaches.

AlexaFitnessPal - Winner at Hack@CEWIT 2017

An IoT & Microservices device with H/W sensors running Machine Learning & Vision algorithms to track activities.

Sentiment Analysis Using Amazon EMR (Elastic MapReduce) & Spark

Built a program that runs over terabytes of data contains more than 1.72 billion web pages using Spark & Apache Hadoop.

TECHNICAL STRENGTHS

Proficient	Python, C, C++, Java, C#, PHP, HTML, JavaScript, CSS, SQL, AJAX, D3js
Prior-Exp	VB, .NET, L ^A T _E X, Bootstrap3, CodeIgniter, Smarty, Android, MongoDB, Flask
Tools	TensorFlow, OpenCV, OpenGL, Hadoop, Spark & MapReduce, Visual Studio, Photoshop, MATLAB

ACHIEVEMENTS

More on [Webpage](#)

- OpenSource projects include **segraph**-a library for creating graphs from SLIC segments.([Published on Python Package Index](#))
- Award for Most Original Project - **HackCEWIT IoT Hackathon - 2017** organized by the Center of Excellence in Wireless and Information Technology, Softheon and **Major League Hacking**.
- 2 Bronze Medals on **HackerRank**, currently at **90.34 Percentile** with a Contest Rating of 1833.
- All India Rank - 176** in JEST - Theoretical Computer Science (Joint Entrance Screening Test, 2016)
- Global Rank 69 & All India Rank 18** in **HackerRank : Real Data 2016 - Data Science (AI) Contest**
- Selected for the prestigious **IIT-Bombay** Research Fellowship Awards, 2015 under Dr. Niranjan Balachandran.
- Selected for **MIT Media Lab** RedX Innovation for Billions Camp 2016 & worked on building an Automated Diagnosis System.
- AMCAT Certified Software Developer - **100%ile** in Quant, **99.99%ile** in Verbal & **97.8%ile** in Programming in AMCAT.
- Awarded *Merit Certificate* from **CBSE** in Information Technology being All-India Topper in High School