ABHINANDAN DUBEY

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

LinkedIn : *https://www.linkedin.com/in/abhinandandubey* | Webpage : *http://www3.cs.stonybrook.edu/~adubey/*

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. | GPA : 3.43 | 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*

- Worked on developing ML-based segmentation algorithms for Biomedical data

Innovator | Innovating For Billions - REDx | **MIT Media Lab**   *January 2016*

Research Publications

- CNN Based Yeast Cell Segmentation in Multi-Modal Fluorescent Microscopy Data   *Spring 2017*
  *CVMI - Proceedings of IEEE Conference on Computer Vision & Pattern Recognition (**CVPR**).*

- Classification of CKD Cases Using MultiVariate K-Means Clustering   *Fall 2015*
  International Journal of Scientific & Research Publications - Volume 5, Issue 8

- **A Simplified Analysis To a Generalized Restricted Partition Problem**   *Winter 2015*
  *PRINCIPIA - Princeton Undergraduate Maths Journal, **Princeton University***

WORK EXPERIENCE

Software Developer | Nomura Securities, New York City   *Feb 2018 - Present*

Risk Technology - Risk Datawarehouse | Data Management

- Integrated **Spark** & **Hive** into existing data virtualization layer to optimize query performance significantly.
- Developed PARSEC (PARquet-based Refreshing Streaming Cache) - a schema-safe CDC solution based on lambda architecture using **Kafka**, **Parquet** & Spark. Also developed a Spark custom Datasource adapter. *(Built in Scala)*
- Developed a module using Spark's **MLLib** which runs **K-Means** and **SOM** (Self-Organizing Maps) over data fetched from ThriftServer for **outlier-detection** in Historical (Timeseries) Market Data. *(Built in Java)*

Summer Analyst Intern | Nomura Securities, New York City   *Jun - Aug 2017*

Risk Technology - Risk Datawarehouse | Data Management

- Developed a bespoke TeaToken Authenticator & Jupyter Notebook Extension (megaclite) for Resource Management.
- Developed a Lineage Tracking Tool using Flask & D3js, also migrated the team from SVN to GitLab.

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.

TECHNICAL STRENGTHS

Proficient	**Python, Scala, C++**, PHP, Bootstrap3, HTML, JavaScript, CSS, SQL, AJAX, D3js
Prior-Exp	Java, React, NodeJS, VB, .NET, LaTeX, CodeIgniter, Play Framework, Flask
Tools	OpenCV, TensorFlow, Hadoop, Spark & MapReduce, 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 in AMCAT.
- Awarded *Merit Certificate* from *CBSE* in Information Technology being All-India Topper in High School