Ayush Baid

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Experience

Goldman Sachs   *Bengaluru, India*
SENIOR ANALYST, RISK DIVISION   *Jun. 2017 - Jul. 2019*
- Designed an end-to-end pipeline to modularize the components of pricing financial instruments for an upcoming FRTB deliverable, providing horizontal scalability and better failure reporting over the existing task distribution engine
- Upgraded the model to package the risk calculations for the best resource usage of the compute farm, fixing five findings from the previous versions and projecting 10% savings in compute costs
- Deployed a new instrumentation framework which attributes compute and memory usage of pricing session to different financial products based on the sharing between them, helping the predictions for future runs

FOSSEE Scilab Toolbox   *Mumbai, India*
OPEN SOURCE CONTRIBUTOR   *Dec. 2015 - Jan. 2017*
- Developed functions in signal processing domain like pseudospectrum evaluation and digital filter design to emulate the API provided in MATLAB

Sony Corporation   *Tokyo, Japan*
SOFTWARE ENGINEERING INTERN, TEST TECHNOLOGY   *May. 2015 - Jul. 2015*
- Developed a new cloud-based testing platform for Android applications and ported the existing tools to the new platform
- Deployed an on-demand test device allocation service supporting different configurations like OS version, display resolution
- Injected stubs in the Android source code to work around restrictions in Android's native emulators

Education

Georgia Institute of Technology   *Atlanta, USA*
M.S. IN COMPUTER SCIENCE   *Aug. 2019 - Aug. 2021 (expected)*
- Specialization: Machine Learning

Indian Institute of Technology (IIT) Bombay   *Mumbai, India*
B.TECH. AND M.TECH. IN ELECTRICAL ENGINEERING, MINOR IN COMPUTER SCIENCE   *Jul. 2012 - June. 2017*
- Cumulative GPA: 3.67

Key Projects

A Bayesian Framework For Removal of Speckles, Smoke, and Noise in Laparoscopy Images   *IIT Bombay*
DISSERTATION | ADVISOR: PROF. AWATE AND PROF. MERCHANT   *Apr. 2016 - Jun. 2017*
- Modelled the uncorrupted image and smoke transmission map using Markov random fields
- Designed novel texture-preserving dictionary-based prior and color distribution prior on the training set and used them as potential functions for the graphical models
- Developed an expectation-maximation based algorithm using variational factorization to infer the uncorrupted image, beating the combination of state-of-the-art in individual corruption solving algorithms
- Awarded an oral presentation at IEEE ISBI 2017. Paper here

Fish recognition using point set registration   *IIT Bombay*
COURSE PROJECT | ADVISOR: PROF. RAJWADE   *Apr. 2016 - Jun. 2017*
- Designed an algorithm to smoothen the boundary and autonomously place points to efficiently capture curvature of dorsal images of fish
- Evaluated the classfication performance using iterative closest point matching, robust point matching, and kernel correlation algorithms

Awards

2017	**Undergraduate Research Award**, for thesis work in laparoscopy image processing	*IIT Bombay*
2014	**1st Place**, Android app development contest for Aakash tablet, Indian govt's affordable tablet program	*IIT Bombay*
2012	**All India Rank 583**, IIT-Joint Entrance Exam	*India*