

Ayush Baid

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Atlanta, GA
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EDUCATION

Georgia Institute of Technology

MS in Computer Science, Specialization in Machine Learning

Aug '19 - May '21 (Exp.)

Atlanta, USA

- GPA: 4.00/4.00 | TA for Computer Vision (Fall '19, Spring '20) | Relevant Courses: Deep Learning, Statistical ML

Indian Institute of Technology (IIT) Bombay

B.Tech. and M.Tech. in Electrical Engineering, Minor in Computer Science

Jul '12 - Jun '17

Mumbai, India

- GPA: 9.17/10.00 | Received UG Research Award | Relevant Courses: Medical Image Processing, Markov Chains

EXPERIENCE

Amazon

SDE Intern, Alexa Multitasking

May '20 - Present

Seattle, USA

- Building a web-app to monitor the state of skills on Alexa enabled devices for multitasking capabilities

Goldman Sachs

Analyst, Risk Division

Jun '17 - Jul '19

Bengaluru, India

- Contributed to ~10% drop in compute by upgrading the task packaging and prediction model used for daily risk
- Designed a microservice based distributed computing system; reduced debug time by 20% with consolidation of data

Sony Corporation

Intern, Test Technology

May '15 - Jul '15

Tokyo, Japan

- Developed a cloud-based testing platform for Android applications with on-demand virtual device allocation service

FOSSEE Scilab Toolbox

Open Source Contributor

Dec '15 - Jan '17

Mumbai, India

- Developed and tested signal processing functions for signal processing toolbox, emulating the MATLAB's API

KEY PROJECTS

Deep Front-Ends for SLAM

Advisor: Dr. Frank Dellaert

Dec '19 - Present

- Benchmarked 900+ combinations of point based front-end methods to find the top algorithms for SLAM applications
- Unified the API across the different third-party algorithms to create a flexible plug-n-play software for easier use

3D Reconstruction for Hydroponics Agriculture

Advisor: Dr. Frank Dellaert

Aug '19 - Jan '20

- Developed an automated system to produce 3D reconstructions of lettuce crops for precision agriculture application
- Designed a robust algorithm for essential matrix by filtering out repeated texture and improved sampling in RANSAC

Moderation on Reddit using NLP

Feb '20 - Apr '20

- Trained deep NLP models for each subreddit and deployed them to complete sentences on politically charged topics

Deep Learning based Weather Transfer in Images

Oct '19 - Nov '19

- Used cycle GANs for image-to-image translation to convert cloudy images to sunny using new content similarity loss


Laparoscopy Image Enhancement using Bayesian Inference

Advisor: Dr. Suyash Awate, Dr. Shabbir Merchant

Jun '16 - Jun '17

- Achieved performance gain by combining smoke removal, speckle removal, and de-noising in a single framework
- Modelled system variables with probabilistic graphical models and designed novel priors for image texture and color

Publications

- Baid, Ayush, et al. "Joint desmoking, specular removal, and denoising of laparoscopy images via graphical models and Bayesian inference." 2017 IEEE 14th International Symposium on Biomedical Imaging (ISBI). IEEE, 2017. 

SKILLS

Languages: Comfortable: C++, Python, Scala | Familiar: JavaScript, Java, MATLAB

Technologies: Comfortable: GTSAM, Kafka, LaTeX, MongoDB, OpenCV, PyTorch, Scikit-Learn
Familiar: AWS, Hadoop, Pandas, Pig, Redis, Spark, SQL