Ashwin Pathak

Resume

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Education

2015-2019 **B.Tech(Honours) in Computer Science and Engineering**, *International Institute of Information Technology*, Hyderabad, *CGPA :* ***9.4***.

2013-2015 **Senior Secondary, CBSE**, *Vijayvergiya Bal Vidyalaya*, Kota, *Percentage:* ***94.6%***. **Topper of the school.**

2013 **Secondary, CBSE**, *St. Joseph's Convent S.S. School*, Sagar, M.P. *CGPA:* ***10***

Experience

July 2019 - Present **Amazon**, Software Development Engineer, Hyderabad India.
Working with Call-Off-Stock team to design and implement services for inventory tracking. Worked on "invoice by amazon" project to enable flash sale for customers and business homepage to cater personalized and guided experience to business customers. Worked on various stacks with AWS, Spring MVC framework, react and nodeJS.

May 2019 - July 2019 **Research Intern - Prof. Giuseppe Manco**, *ICAR-CNR*, Italy.
Worked remotely on safety and security of deep neural networks. Carried out intensive research on ways of fooling deep neural networks and how to mitigate them. Developed a variational auto-encoders based semi-supervised learning classifier for Nazism detection.

May 2018- July 2018 **Amazon**, Software Development Intern, Hyderabad India.
Worked on a new recommendations widget for **Amazon Business Homepage**. Implemented the recommendations module for users based on their shopping preferences. The module is deployed to all the marketplaces in the world.

Aug 2017 - April 2019 **Teaching Assistant**, Computer Graphics, Digital Logic and Processors and Digital Image Processing, IIIT.
Worked with **Prof. Ravi Kiran, Prof. Avinash Sharma and Prof. Madhav Krishna** to conduct tutorial sessions for the computer vision students, second year and first year undergraduate students respectively.

Feb 2017- May 2017 **SciPy.diff**, Open Source Contributor, Python Software Foundation.
A contributor to the open source organization of library scipy of python. Worked on the implementation of a **new module: scipy.diff** for calculating the derivatives.

Publications

- **AbuseAnalyzer: Abuse Detection, Severity and Target Prediction for Gab Posts**, Natural Language Processing.
The paper has been accepted at The 28th Intl. Conference on Computational Linguistics (https://coling2020.org/), with the authors : Mohit Chandra, Ashwin Pathak, Eesha Dutta, Paryul Jain, Manish Gupta, Manish Shrivastava, Ponnurangam Kumaraguru

Projects

- **Hate Speech Detection in code-mixed Data**, Speech Detection and Recognition.
  Worked with Prof. Ponnurangam Kumaraguru on hindi-english code mixed tweets for hate speech detection and analysis.
- **Novel view synthesis of hand-drawn sketches**, Computer Vision.
  Worked with Prof. Ravi Kiran to render sketches from a different viewpoint. The approach is based on transformation grounded image generation network involving deep auto encoder-decoder networks and GANs.
- **User Perspective Rendering in AR**, Computer Vision.
  Worked with Prof. P.J. Narayanan (Director of the institute) on the topic: hand-held user perspective rendering and optimization using Deep Neural Networks for Honors Research.
- **Parallax Tolerant Image Stitching**, Computer Vision.
  Worked in a team of 2 under the mentorship of Dr. Anoop Namboodiri. The method was based on finding alignment terms corresponding to local stitching and then applying Content Preserving Warping for refining the results
- **Model Based Document Classification and Clustering**, Machine Learning.
  Worked in a team of 4 to develop a generative model using Gaussian Mixture Models to classify and cluster the documents. The approach was made efficient by trying out various methods to improve the accuracy.

Skill Set

OS	Linux, Windows, MacOS, Android
Programming and Scripting	C, C++, Python, Java, JavaScript, NodeJS, Bash, MATLAB
Web	HTML, CSS, JavaScript, jQuery(+AJAX)(Basic), REACT, REDUX, Spring MVC, Laravel(Basic), Django, web2py
Miscellaneous	Matlab, SQLite, AWS, Git, Intellij, Android Studio, Vim, OpenGL, Unity Game Engine, Vuforia, Mockito, Nosetests, PyTorch, Keras

Relevant Courses

- Software Engineering, Complexity and Advanced Algorithms, Database Systems, Statistical Methods in AI, Digital Image Processing, Distributed Systems, Computer Vision, Principle of Information Security, Data Structures, Algorithms, Operating Systems, Artificial Intelligence, Computer Graphics, Computer Networks, Computer System Organization, Graph Theory.

Achievements and Extra-Curricular

- Awarded **Dean's Merit List for Academic Excellence** (top 5% of the batch) in every semester.
- Became a **National Talent Search Examination(NTSE) scholar** in the year 2013 conducted by NCERT.
- Former member of **Alumni Cell** of IIIT.