

AMBER GUPTA

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EDUCATION

University of Illinois at Urbana-Champaign (UIUC)

Aug 2019 – Dec 2020

Masters Degree in Computer Science

GPA: 4.00 / 4.00

- **Courses:** Machine Learning, Building Autonomous Vehicles, Data Mining, Natural Language Processing, Computer Vision, Computational Photography, ML for Signal Processing
- **Teaching Experience:** Data Mining (Prof. Jiawei Han), Data Structures

The University of Alabama, Tuscaloosa

Aug 2015 – May 2019

Bachelor of Science in Computer Science Engineering

GPA: 3.84 / 4.00

- Recipient of Presidential Scholarship
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SKILLS

- **Programming:** Python, C, C++, R, SQL, Java, VB.Net, TypeScript, JavaScript
 - **Technologies:** TensorFlow, PyTorch, MS Azure, Scikit-learn, OpenCV, Elasticsearch, SAS, JMP, Angular, NodeJS
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WORK EXPERIENCE

Software Engineering Intern – NLP, Nvidia Corp., Santa Clara

May 2020 – Aug 2020

- Designed and developed information extraction model to highlight relevant lines in Nvidia GPU driver logs using Universal Sentence Encoder (U.S.E) based embeddings and LSTMs based Recurrent Neural Network architecture
- Built a density-based clustering model to group logs with similar context using highlighted relevant lines
- Applied PCA and UMAP based dimensionality reduction on U.S.E vector embedding followed by HDBSCAN clustering
- Performed semi-supervised learning by devising a continuous feedback mechanism to improve model performance

Software Engineering Intern, Insuresoft LLC, Tuscaloosa

May 2017 – May 2019

- Automated deployment of legacy software by developing a web app to utilize Azure Resource Management (ARM) templates accounting for speed, efficiency and security
 - Created new features for in-house software version control and ticket management system
 - Administrated software release process by managing code-cut dates, testing requirements and production builds
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PROJECT HIGHLIGHTS

Dependency Aware Taxonomy Expansion, UIUC

Jan 2020 – May 2020

- Designed a taxonomy expansion framework capturing concept inter-dependency to generate best order of insertion
- Introduced dependency-aware insertion to state-of-the-art taxonomy expansion framework (TaxoExpan) resulting in 38% Mean Rank improvement

Obstructive Artifact Removal from Single-Shot Images, UIUC

Jan 2020 – May 2020

- Implemented a CNN based Encoder-Decoder model to detect and eradicate rain, fences, and reflection from images
- Evaluated model performance using Structural Similarity Index (SSIM) on benchmark datasets: SIR2 for reflection (0.90), De-fence/Net (0.80) and synthetically induced rain image dataset (0.88)

Yelp Dataset Challenge – Review Analysis, UIUC

Aug 2019 – Dec 2019

- Performed sentiment analysis on Yelp reviews to classify into 5-star user ratings
 - Trained Hierarchical Attention Networks & Kim-CNN with Word2Vec embeddings and compare accuracy against BERT
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HONORS

First Place – CrimsonHacks III, The University of Alabama - (Drowsy Drivers)

Mar 2019

- Developed Brain-Computer Interface System to detect drowsiness in drivers by exploiting real-time EEG data

Runners Up – VolHacks III, University of Tennessee - (DiffPic: What's the difference?)

Sept 2018

- Created web-app to visualize changes in an image file over its commit history for GitHub Repositories
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LEADERSHIP

Server Admin, Server Migration Team, Family Counseling Services, Tuscaloosa

Aug 2018 – Dec 2018

- Upgraded Microsoft business servers for non-profit organization to improve online presence
- Planned, implemented, and troubleshoot server migration process by leading a team of 4 people

Treasurer, Indian Students Association of Tuscaloosa

May 2016 – Aug 2017

- Led a \$12K fundraising effort from a multitude of university and community sources to fund annual cultural events