AMBER GUPTA

amberg4@illinois.edu|205-435-2352|Permanent Resident - US|www.ambergupta.com|linkedin.com/in/amber-gupta

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

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

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

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**

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

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