Vishal Gupta

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EDUCATION

University of Florida **Gainesville, FL**
MS in Computer Science GPA: 3.59/4.0 *Aug 2016 - Dec 2017*
Courses: Advance ML, Advance DS, Big Data Ecosystems, Distributed OS, Analysis of Algorithms, Intro to Data Science

Indian Institute of Technology **Kanpur, India**
B. Tech. in Electrical Engineering GPA: 7.0/10.0 *June 2010 - June 2014*
Courses: AI Programming, Probability and Statistics , Statistical Simulation & Data Analysis, Convex Optimization, NLP

EXPERIENCE

Claimfound Inc. **Gainesville, FL**
Software Developer | *Skills:* ***Python, PostgreSQL, JavaScript, Docker, AWS*** *March 2018 - Present*
- Optimizing search and user info matching by **data mining** users across *whitepages* database
- **Back-end development** for Flask-based webapp, architecting scalable APIs & DB design with agile methodologies
- Implemented and automated logic for massive DB updates & maintenance **reducing man hours from days to hours**
- Designed & deployed reliable, scalable & elegant cloud based services: **Elastic Cache, VPN and Auto-scaling nodes**
- Automated end to end testing for the complete webapp.

Qualcomm Inc. **San Diego, CA**
Graduate Engineering Intern | *Skills:* ***Python, TensorFlow, GPU*** *May 2017 - Aug 2017*
- Research of CNN based **deep learning algorithms*** for improving traditional camera design and capabilities
- Development of **Python APIs** for generating high quality RGB images from raw sensor data
- Reduced (luma & chroma) noise by **2x** using multi-resolution approach for large range of ISOs

Qualcomm India Pvt. Ltd. **Bangalore, India**
Associate Engineer | *Skills:* ***C++, Python*** *June 2014 – Aug 2016*
- Assisted in **development & integration of firmware** on premium tier SoCs: Snapdragon 820, 810, 800 etc
- Reduced man-hours by 3x & 2x boost in verification coverage by **automation of verification infra** across 7 SoCs

Intelligent Data Engineering & Automation Laboratory **Kanpur, India**
Research Associate | *Skills:* ***MATLAB, Java, Android*** *May 2012 - Dec 2012*
- Formulated methodology for fault discovery using **advanced signal processing** techniques on acoustic signals
- Deigned **Softmax Classifier with Sparse Auto-Encoder** achieving 98% accuracy for fault detection task

PROJECTS

Multi-Domain Chat-bot | *Skills:* **Python, TensorFlow, GPU**
- **RNN-LSTM network with attention mechanism** for embedding multi-domain context
- Improved the context specificity of output ranging from information-centric questions to understanding emotions.

Credit Card Fraud Detection | *Skills:* **Python, Pandas, Sklearn**
- Accomplished **highest AUC of 0.98** on extremely skewed fraud transaction dataset with XGBoost algorithm & ensemble methods

Transfer Learning on Kaggle Cats & Dogs Dataset | *Skills:* **Python, SVM, GPU**
- Obtained 2-class accuracy as high as 70% & 63% for 3-class classification with just 5000 samples using **kernel SVM** with **hyper-parameter optimization** using Bayesian approach using Inception-v3 deep features

PUBLICATIONS

- Anup Zade & *Vishal Gupta*, **"Software Centric Verification of xPU and other Security Blocks**"** In QBUZZ'15, Annual Developer Conference organized by Qualcomm India Pvt. Ltd.
- Nishchal Verma, *Vishal Gupta*, Mayank Sharma & Rahul K Sevakula, **"Intelligent Condition Based Monitoring of Rotating Machines using Sparse Auto-Encoders"**, IEEE International Conference on Prognostic Health Management, 2013

ADDITIONAL

- Technical Skills
  - **Proficient**: Python, C/C++, Java, PostgreSQL, Git, MATLAB, Linux, Bash, MacOS
  - **Skilled**: Flask, Docker, ORM, GPU, HTML, Jira
  - **Familiar**: Android, Angular, JavaScript, TypeScript, Spark, MapReduce,
- **Gartner Group Info Tech Scholarship** for outstanding academics among 700 MS students in CSE Dept (academic year 2016-2017)
- **Graduate Assistant** for the course Sparse Coding in Sensing, Imaging & Learning, Fall'17

*1 Patent Application in process; **Manuscript proprietary of Qualcomm