Amlaan Bhoi

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Education

- **University of Illinois at Chicago** — Chicago, IL
  Master of Science (MS) in Computer Science; GPA: 4.00/4.0 — *Expected May 2019*
  - **Relevant Coursework**: Advanced Machine Learning, Data Mining & Text Mining, Introduction to Data Science, Applied Artificial Intelligence, Virtual and Augmented Reality
- **Amity University** — Noida, India
  Bachelor of Technology (B.Tech) in Computer Science and Engineering; GPA: 3.31/4.0 — *July 2013 – May 2017*
  - **Relevant Coursework**: Pattern Recognition, Artificial Intelligence, Analysis & Design of Algorithms, Data Structures, Graph Theory, Operating Systems, Advanced Java Programming, Compiler Construction

Experience

- **Reliance Communications** — Navi Mumbai, India
  Intern — *May 2016 - July 2016*
  - **Internet of Things**: Created IoT case studies to reduce company infrastructure costs up to 40% as measured by finance department by developing 3 case studies with on-site device implementation design.
  - **Node Maintenance**: Reduced node maintenance costs of network infrastructure by 25% by implementing Dijkstra's algorithm on vulnerable nodes.
  - **CSV Parser to SQLite**: Wrote Python scripts to parse CSV data, create appropriate tables, and store data in SQLite databases.
- **OSSCube Solutions** — Noida, India
  Software Engineer Intern — *May 2015 - July 2015*
  - **Objective-C Data Structure Libraries**: Created custom data modal libraries in Objective-C for future use and reduce overhead by 35%.
  - **Processmaker**: Created Automated Job Application Acceptance process in PHP for Human Resources to reduce paperwork by 50% by using Processmaker.
  - **JUnit Test Cases**: Wrote JUnit test cases to detect modular issues for prototype Employee Information System.

Projects

- **Optical Character Recognition using Conditional Random Fields (Python, Numpy, Tensorflow)**: Achieved 84% letter-wise accuracy with CRF implementation (using dynamic programming) in $O(m|\mathcal{Y}|^2)$ complexity and validated with Tensorflow's CRF scores.
- **Lifeguard.io (Python, Microsoft CNTK, OpenCV)**: Trained a 3DCNN object detection CNTK model to detect drowning people in swimming pool videos with 56% accuracy.
- **Squeek (Objective-C, Xcode, Twitter Fabric SDK)**: Developed iOS Twitter client using REST and Fabric SDK to authenticate user, parse JSON data, and create and show appropriate and customized views to user.
- **Otto Group Product Classification Challenge using Stacked Generalization (Scikit-Learn, XGBoost, Keras)**: Used GridSearchCV to tune XGBoost parameters on Google Cloud Platform (1.27 million fits) and used 8 models in stacked generalization architecture to achieve 0.43 multi-class log loss.
- **ARYouThereYet (Swift, ARKit, Google Maps SDK)**: Created an AR application using Google Maps and Mapbox live data with dynamically generated AR location nodes and navigation view to destination.

Activities & Achievements

- **Best Microsoft Hack - HackHarvard 2017 (Cambridge, MA)**: 1st out of 220 teams
- **Google Games: Campus Edition 2016 - UIC (Chicago, IL)**: 16th out of 50 teams
- **Best in Technical Innovation - Amity University (Noida, India)**: 1st out of 800 students
- **ACM Amity Student Chapter - Amity University (Noida, India)**: Vice-chair (2015-2017)

Technical Skills

- **Languages**: Python (expert), Java (expert), C (expert), Swift (expert), SQL (expert), LaTeX(expert)
- **Frameworks**: Tensorflow, Keras, OpenCV, Scikit-Learn, Caffe2, Microsoft CNTK, Google Cloud Platform