Nakul Camasamudram

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Availability: **May 2018**

EDUCATION

Northeastern University, Boston, MA — *Jan 2016–Present*
Candidate for a Master of Science in Computer Science — *Expected graduation: Apr 2018*
Related Coursework: Algorithms, Information Retrieval, Machine Learning, Data Mining, Computer Systems — ***GPA: 3.83***

Visvesvaraya Technological University, Bangalore, India — *Sept 2011–May 2015*
Bachelor of Engineering – Telecommunication Engineering — ***First Class with Distinction***

TECHNICAL KNOWLEDGE

Languages:	Python, Java, R, C, Scala, JavaScript, Racket, Bash, HTML + CSS
Technologies:	Flask, jQuery, Celery, Redis, Apache Lucene, Android, Leap Motion
Data:	Hadoop, Spark, scikit-learn, TensorFlow, Keras, Weka
Cloud/DevOps:	Amazon Web Services(AWS), Terraform, Packer, Docker, Gitlab CI, SumoLogic

WORK EXPERIENCE

College of Computer and Information Science, Northeastern University, Boston, MA — *Sept 2017– Current*
Teaching Assistant – Computer Systems

Veracode, *Burlington, MA* — *Jan–Aug 2017*
Cloud Engineering Co-op – Veracode Greenlight
- Designed a microservice architecture on AWS for Veracode Greenlight, a static code analysis security service.
- Built a fast, scalable service that logs user activity using AWS Lambda, SumoLogic, Redis and DynamoDB.
- Achieved scalability from 1k scans/month to 10k scans/day, and reduced infrastructure costs by 50% by improving algorithmic efficiency and memory usage.
- Extended Gitlab CI pipeline to transition from monthly to multiple automated "per-feature" deployments
- Developed a RESTful API using Amazon API Gateway, AWS Lambda to facilitate Greenlight' integration into CI/CD pipelines.

CodeSpeak Solutions, *Bangalore, India* — *Aug–Nov 2015*
Software Engineer
- Designed and developed hyperlocal e-commerce platform with an Android front-end and Parse backend, as a one-person department. Deployed app on Play store, and helped secure around $300,000 in funding for the client.

SELECTED PROJECTS

Recommender System for Instacart, *Northeastern University, Boston, MA* — *Oct–Dec 2017*
- Built Collaborative Filtering systems to suggest recommendations to Instacart users. Approaches include TF-IDF-based neighborhood methods and matrix factorization methods specific to implicit feedback data.

Airbnb Listing-Price Prediction, *Northeastern University, Boston, MA* — *Oct–Dec 2017*
- Designed models to predict prices for Airbnb listings in Boston by exploring penalized regression, Generalized Additive Models(GAMs), regression trees and neural networks.

TripAdvisor Challenge, *Brown Hackathon '17, Providence, RI* — *March 2017*
- Modeled whether a purchase would be made from TripAdvisor using random forests implemented on Hadoop MapReduce, with each tree built on a separate worker machine.

Machiavel – AI Plunderphonic Music Generator, *HackNEU'17, Boston, MA* — *Feb 2017*
- Generate music collages inspired by "The Avalanches" from a folder of audio files by randomly selecting a song to build a mix around.
- Utilized a Markov chain model to select other appropriate songs from that folder – tempo-stretching and pitch-shifting them as needed – to slice into samples, which were then assembled into a multi-track mix.

Computer Systems, *Northeastern University, Boston, MA* — *Sept–Dec 2016*
- Implemented a highly consistent distributed key-value store that allows dynamic membership changes.
- Designed Distributed Shared Memory(DSM) system in userspace library for Linux applications, modeled after the IVY DSM.