Tanmay Binaykiya

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Education

Georgia Institute of Technology, Atlanta, GA — Aug 2017 - Present
Master of Science in Computer Science — GPA: 4.0/4.0

Birla Institute of Technology and Science, Pilani, India — Aug 2009 - July 2015
Bachelor of Engineering in Computer Science — GPA: 7.85/10.0

Graduate Courses

Natural Language, Advanced Computer Vision, Artificial Intelligence, Computer Vision, Computer Graphics

Technical Skills

Languages: Java, Python, Javascript, C
Technologies: AWS, Docker, Spring Boot
Big Data Technologies: Apache Spark, PyTorch, NumPy

Experience

Uber Technologies — May 2018 - July 2018
Software Engineer Intern — Palo Alto, CA
Technologies Used: Apache Spark, Grafite, Docker, Java

MapCrunch Reliability
Developed a reliability framework for Apache Spark based map metrics computation pipeline

Catch Map Errors (CatchME)
Prototyped a Hidden Markov Model's emission probability-based algorithm to detect Map Errors using drivers' GPS traces

BlueJeans Networks — June 2016 - July 2017
Senior Software Engineer — Bangalore, INDIA
Technologies Used: AWS, Spring Cloud, Wowza, NodeJS, Java

Next Generation Platform

- Redesigned and migrated the existing technology stack to Amazon Web Services Cloud
- Developed a Spring-Boot based software platform to facilitate deployment of existing monolith as microservices
- Improved system load capacity from 500 RPS to 100k RPS and uptime from .99 to .9999

Social Media Gateway
Developed a AWS Lambda-based NodeJS solution to enable live streaming video conferences into RTMP entry points providing in-meeting Facebook Live broadcast capabilities achieving a time-to-market of **14 days**

BlueJeans Networks — May 2015 - June 2016
Software Engineer — Bangalore, INDIA
Technologies Used: AWS, Wowza, Java

Autoscaler Service
Developed a transcoder auto provisioning system based on real-time usage patterns reducing AWS usage costs by 55%

BlueJeans Networks — Jul 2014 - Jul 2015
Software Engineer Intern — Bangalore, INDIA
Technologies Used: Kubernetes, Selenium, Gatling, NodeJS, Scala, Java

- Developed a proof-of-concept to deploy the OnVideo stack on AWS EC2 using Kubernetes
- Developed a Web UI Automation framework to enable multi-browser, multi-node, multi-device concurrent testing
- Developed a stress testing framework to simulate peak loads

National Aluminium Company Limited — May 2012 - Jul 2012
Software Development Intern — Bhubaneswar, INDIA
Technologies Used: ASP.NET

Ojaswi Tech Jun 2011 - Aug 2011
Graphic Design Intern Pune, INDIA
Technologies Used: Adobe Photoshop, Adobe Illustrator, Adobe After Effects

- Developed UI mocks for a client websites and developed UI elements standards.
- Developed Marketing Presentation Videos for clients

Awards & Honors

Quarterly Award, BlueJeans Networks July 2017

Teaching Experience

Georgia Institute of Technology, Atlanta

CS 4510 Automata & Computability Spring 2018

Birla Institute of Technology & Science, Pilani

Creative Multimedia Spring 2014
Computer Graphics Fall 2013
Computer Graphics Spring 2013
Human Computer Interaction Fall 2012

Academic Projects

Coreference Resolution Apr 2018
Built a coreference resolution pipeline using an Attention-Based-LSTM

Dependency Parser Apr 2018
Built an arc-standard transition-based Dependency Parser

Sequence Labeling Mar 2018
Implemented a Part-of-Speech tagger based on Hidden Markov model and BiLSTM - Conditional Random Field models

Text Classification Feb 2018
Implemented lyrics classifiers based on Naive Bayes, Perceptron, Logistic Regression techniques

Morse Code Recognition Dec 2017
Implemented a Morse code recognition system through the use of Hidden Markov Models

Scene Classification with Deep Learning Nov 2017
Built a vanilla CNN and Transfer Learning based scene classification pipeline

Face Detection Nov 2017
Built a face detection pipeline based on Dalal & Triggs method for pedestrian detection using HoG descriptor

Surface Reconstruction from Point Cloud Data Nov 2017
Water Tight Surface Reconstruction of 3D Point Cloud Data using the Ball Pivoting Algorithm

Automatic Image Segmentation using Expectation Maximization Nov 2017
Implemented Image segmentation using K-Means, Gaussian Mixture Models employing the Bayesian Information Criterion

Dead-end Isolation Game AI Aug 2017
Developed a dead-end isolation game player based on Minimax Algorithm using Alpha-Beta pruning

Scene Recognition with Bag of Words Oct 2017
Developed a scene recognition pipeline with Bag of SIFT and linear SVM classifier

Local Feature Matching Sep 2017
Developed a local feature matching algorithm implementing Harris Feature Point Detector and implemented a SIFT-like local feature descriptor