Siddhant Johan Barua

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EDUCATION

Stevens Institute of Technology — Hoboken, NJ
Master of Science in Computer Science; GPA: 3.8/4.0 — *August 2018 - May 2020*
Relevant Coursework: Algorithms, Web Programming, Cyber Security, Computer Vision, Operating Systems Machine Learning, Concurrent Programming, TCP/IP networking, Human Computer Interaction

P.E.S Institute of Technology — Bangalore, India
Bachelor of Engineering in Computer Science; GPA: 7.03/10 — *August 2012 - July 2016*

SKILLS

Front-End Technologies: React, Bootstrap, Redux
Languages: C, C++, Python, Java, JavaScript, HTML/CSS
Database Technologies: MongoDB, SQL, MariaDb
Frameworks: Sklearn, Socket I/O, Flutter, Node,js, Express.js, GraphQL, Docker, Django, Twilio

EXPERIENCE

HGS Digital — Chicago, USA
Software Engineer — *September 2020 - Present*

- Leveraged knowledge in Node, Express and Web Sockets to develop the back-end services for a Video Conferencing application, on Twilio's programmable video platform
- Re-innovated the server side data-cache to an opt-in opt-out architecture, in lieu of an absolute cache storage architecture hence improving server response times by 86%
- Enhanced CCaaS RESTful API's to include customer sentiment analysis using AWS Comprehend
- Formulated a SSE based API, integrated with a look-up table in order to synchronize 3 disjoint web applications
- Engineered Facebook, Whatsapp & Video Conference extensions to sandbox solutions, hence doubling customer outreach
- Developed a configurable special character triggered text suggestion feature as an addition to web-chat functionality

Tally Solutions — Bangalore, India
Software Engineer Intern — *August 2017 - May 2018*

- **Tally Connector** : Mobile Application
  - Provided proof of concept and performed testing for the Sales Aggregator RESTful Api, built using Dynamic Arrays in Java, reduced end of day sales aggregation from 45 minutes to a few minutes
  - Inventory Management - Engineered the migration from an array data structure to a thread safe hash map data structure in Java, increased lookup efficiency from O(N) to O(1)
- **Tally.ERP 9 (business management software)**: Innovated a priority queue data structure into the Order Management module, prioritizing based on a function of order size, delivery requirement, frequency etc. Amplified delivery compliance by an estimated 44%

Zynga — Bangalore, India
Game Design Intern — *December 2016 - June 2017*

- **Farmville Assets**: Designed over 800 assets for the game Farmville
- **Farmville Cadence**: Conceptualized the GET operation for Farm Crops, for over 10 front-loaded monthly Quests
- Lead Designer of the Feature Adventurer's Inc, created design specs & XML format as well as performed prototype testing
- Proposed reduction of in-game asset price by 20% for Adventurer's Inc. Resulting in more than 37% increase in in-game spending

PROJECTS

- **BudgetFlix**: A video streaming website that aims to emulate the functionality of Netflix, using JavaScript, React, AWS and Python
  - Developed Front-End components using React & React video API for playing the videos, Back-End API implementation using Express.js and hosted on heroku. During it's live period saw close to 90 distinct users
  - Leveraged the scalable storage services of Amazon S3, to simulate a movie repository
  - Established a like/dislike feature based on which the machine recommends movies (1,000,209 anonymous ratings Training Set)
  - An Auto-Encoder Neural Network model built on Keras and Flask framework, performs the operation of suggesting similar movies
- **Video Game Sales Prediction**: A python based machine learning project that uses periodic sales data of video games in distinct regions and other factors, to predict global sales
  - A Kaggle data-set is used as the basis for training and testing (10,000 unique ratings)
  - The data is cleaned and the relevant factors(columns) are standardized (almost 600 missing ratings)
  - Considers MSE(Mean Squared Error) and MAE(Mean Absolute Error) as the basis for regression model comparison
  - Models established : Linear Regression, Random Forest, Boosting, SVM (Support Vector Machine, Using SVR - Support Vector Regressor)