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++, Python, Java, JavaScript, HTML/CSS, Dart
Database Technologies: MongoDB, SQL
Frameworks: Sklearn, Socket I/O, Flutter, Node,js, Express.js, GraphQL, Spring: Boot

EXPERIENCE

Helse Laboratories Pvt Ltd   Surat, India
Remote/Contract Software Developer   *June 2019 - August 2019*
- Developed an internal Pharmaceutical Inventory Management Application using JavaScript and React.
- Suggests alternative medicines with similar active ingredients, in multiple price ranges and regional availability
- Dynamic price updates and specific drug reports based on the CIMS API (using Axios and npm-csvtojson)
- Enabled direct pipe between pharma-rep(s), suppliers and health-care providers
- Supplier suggestions based on distance, past order compliance and availability

Tally Solutions   Bangalore, India
Software Engineer Intern   *August 2017 - May 2018*
- **Tally Connector** : Mobile Application
  * Testing and proof of concept 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 - Helped the migration from an array data structure to a thread safe hash map data structure in Java, increased efficiency from O(N) to O(1)
- **Tally.ERP 9 (business management software)**: Incorporated 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 24%

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
- Involved in the establishment of 5 features for the Farmville Expansion: Isle of Dreams and Legend of Tengguan
- 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 40% 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
  - Created Front-End components using React & React video API for playing the videos, Back-End implementation using Express.js, established 14 components
  - Leveraged the scalable storage of Amazon S3 web service, to simulate a local movie repository.
  - Includes 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)
- **Infrasonic Progress Tracker**: A volunteer student progress and attendance tracking application for Infrasonic Inc,
  - The project was implemented using MongoDB Clusters to store student/teacher information, Java-Script and React
  - Incorporated graphical representations of student's progress and attendance.
  - Developed modules (using npm- music-notation) to facilitate online learning with video-tutorials, sheet/ tab music.