

DEBRAJ DEY

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[Portfolio](#) [LinkedIn](#) [GitHub](#)

EDUCATION

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| • Purdue School of Science | MS in Computer and Information Science | Grad: May 2019 (GPA- 3.30) |
| • Calcutta Institute of Technology | BTech in Computer Science and Engineering | Grad: August 2016 (GPA- 3.65) |

SKILLS

- Java || JavaScript || HTML || CSS || Bootstrap || Angular || React || jQuery || Node || Vanilla || Version Control – Git || Redux
- WordPress || Drupal || Webservices || Webpack || Parcel || GraphQL || REST || SOAP || Tableau || Google Analytics || AWS
- JSON || XML || CSV || XSL || MYSQL || PIG || HIVE || SPARK || Ambari Sandbox || C++ || Selenium || D3 Libraries
- CI/CD - Jenkins || Chai || Visual Studio || Eclipse || IntelliJ || Wireshark || Carshark || Shopify || JIRA || SEO || Design Patterns

WORK EXPERIENCE

Web Developer, University Information Technology Services (UITs) **November 2017 – May 2019**

- Responsibility includes website development on different platforms using HTML5 | CSS | JavaScript | Bootstrap | Angular.
- Worked with data formats like XML | JSON also managing university information and database. Used repositories like GIT | SVN.
- Used content management systems like WordPress and Drupal, including website connectivity with Kaltura.
- Diagnosed errors, troubleshooting media plugins. Working alongside experienced software developer and testers.

Software Engineer, Wipro Limited **August 2016 – July 2017**

- Responsibility includes Web Application development testing, troubleshooting. Worked mainly in Agile Environment.
- Work done on Reactive forms, Web Forms 2.0 in Angular and their validations. Used Node.js for server-side coding.
- Experienced in developing tools like Visual Studio, IntelliJ. Website Development and Database Connectivity using Firebird.
- Constant testing on email servers using MX Toolbox and troubleshooting the issue if not escalate.

Technical Assistant, University Library at Calcutta Institute of Technology (CIT) **January 2013 – December 2015**

- Responsibility included Database Administrator 40% Technical Analyst 60% including constant development of university website.
- Library Management- Registering books in college database, keep a track on books. Troubleshot hardware devices, helped students.

WORK PROJECTS

➤ **Migration project (Indiana University)** **November 2017 – April 2019**

- Developed new websites using HTML5 | CSS | JavaScript | Bootstrap, with constant testing and covering all possible test cases.
- Expertise in Angular framework directives, services, controllers, filters, templates, events and injectors.
- Migrated university blogs and media to Kaltura Media Space. Adding RSS feeds to playlists and test them on different platforms.
- Installed and activated different Plugins in CMS like WordPress and Drupal on the university blogs pages and tested functionality.
- Database connectivity process between Kaltura and University server. Monitoring server usage SolarWinds SAM.

➤ **The Polis Center - IUPUI** **April 2018 - March 2019**

- Responsible for architecture, design, implementation using HTML | CSS | JavaScript. Updated website inventory using WordPress.
- Utilized Angular to implement website functionality. Made compatible with desktop, mobile, tablet by creating print friendly pages.
- Worked on different buttons, tabs, box design, animation to make them look appealing for better user experience.

➤ **Pain and Policy Studies Group** **May 2018 - December 2018**

- Designed and deployed menus, submenus, side navigation bar for the Drupal website using HTML5 | CSS | JavaScript.
- Migrated the website from Drupal 6 to Drupal 7 after carefully backing up existing data and other settings and configuration.
- Customized footer, removed white spaces, updated the existing UI, made pages print friendly and browser compatible.

➤ **Searching Toolbox (British Telecom)** **August 2016 - March 2017**

- Advanced Keyword Driven Searching Technique and worked on a new searching algorithm technique using Choco and Struts2.
- Identified, analysed and Documented gaps in existing test coverage for the new advanced algorithm.
- Connected website searches to Google Database for better user experience. Analysed all possible test cases.
- Introduced new toolbar for product search, offer search, redeem codes and did error monitoring for fake codes.
- Advanced Login process, enabling more secured customer information and payment information.

➤ **BT TV New User Guide (British Telecom)** **March 2017 - July 2017**

- Introduced BT Sports 3, UEFA Champions League broadcast page using HTML | JavaScript. Validated Web forms using Angular.
- Worked on a new TV help tool for BT TV customers and a self-troubleshooting tool for users to get a quick fix.
- Developed, maintained and customized the existing live streaming media plugins. Created news pages for the user guide.

OTHER PROJECTS

➤ **Games – CatRatDog, Blackjack** **December 2018 - April 2019**

- Developed the front-end using CSS | HTML5 | XHTML | Bootstrap | JavaScript framework to build this single player game.
- Typed.js library is used for better UI Design. Covered and reviewed all the test cases carefully to achieve an accurate result.
- Used Different functional logic to make the games much more interactive and fun to play to achieve a satisfying user experience.

➤ **A Competitive Study between Different Software Design Patterns Using Java** **January 2019 - April 2019**

- Considered six different structural and behavioral design patterns and implemented them independently using Java.
- Compared each one of the design patterns by taking different parameters like usability, efficiency and code management.

- **Electronic Voting System Using Blockchain (Hyperledger)** **August 2018 – December 2018**
 - Used Hyperledger Composer and Hyperledger Fabric to create a permission blockchain application for electronic voting.
 - Explored different possibilities for system design using JAVA, provided an implementation to satisfy the requirements of an EVS.
 - Analyzed the performance of our system and reviewed the satisfaction of electronic voting system requirements.
- **Data Visualization on Game of Thrones Dataset using D3.js library** **January 2018 – May 2018**
 - Implemented Force-Directed Graph, Interactive Web, Interactive Bubble Chart using d3.js libraries.
 - Used HTML5 and CSS to build the main page and include all three-visualization techniques. Used Kaggle's dataset.
 - Analyzed the family tree and dynasty of the characters in the series and books. Also, measured the weighted average.
- **Abuse Detection System** **August 2018 – December 2018**
 - Analyzed Twitter dataset using Hadoop frameworks: Apache Pig and Hive to identify whether a tweet is abusive or not abusive.
 - Provided a comparative study between these two frameworks and did Data Visualization using Tableau.
- **Yelp Reviews Recommendation System** **January 2018 – May 2018**
 - Analyzed the reviews from the dataset and implemented Sentimental Analysis.
 - Implemented Apriori Algorithm and Multinomial Naïve Bayes Algorithm to NLP problems.
 - Analyzed reviews and ratings to predict the accuracy (92%). Used Seaborn and Tableau for statistical data visualization.
- **Crime Rate Analysis Using AWS Machine Learning** **January 2018 – May 2018**
 - Collected dataset from Kaggle. Data cleaning, scrubbing for duplicates and data standardizing for optimized results.
 - Uploaded the dataset into Amazon Web Services, then analyzed the data using AWS S3(Simple Storage Service).
 - Predicted the crime rates and type of crimes in Chicago using the AWS Machine Learning Technique.
 - Created different graphs for analysis and used Tableau for data visualization.
- **Instagram Picture Locator Using REST API** **August 2017 – December 2017**
 - Fetched data from Google Map API for manipulation of the JSON file.
 - Used API console Apigee to make requests to the Instagram API. Results are satisfiable and accurate.
- **Chatbot- A Project on Artificial Intelligence (Visual Studio, LUIS)** **August 2017 – December 2017**
 - Build an intelligent chatbot which gives us the academic details including grades and subjects.
 - Implemented Language Understanding Intelligent Service (LUIS) for Natural Language Processing (NLP).
 - Used Microsoft Bot Framework to connect our bot with different messaging services like Skype, Facebook Messenger, Twitter.
- **Deep Analyzing between different programming languages. (Java, C, Python)** **August 2017 – December 2017**
 - Implemented features like Garbage collection, Pointers, Multi-level Inheritance using Recursion in Java, C and Python.
 - Measured and analyzed parameters like Run Time Complexity, Speed, CPU cycle using different graphs.
 - Speed comparison between all three languages especially with smaller input sizes. Probable factors behind performance are analyzed.
- **IMDB Movie Rating Analysis Using Hadoop, Big Data (Pig, Spark)** **January 2017 – May 2017**
 - Data Cleaning, scrubbing for duplicates. Performed data standardization in the beginning to optimize the accuracy and result.
 - Analyzed data using Hortonworks Sandbox. Used Pig and Spark to create scripts to process data on the Hadoop cluster.
 - Analyzed non-relational data using HBase, Cassandra, and MongoDB. Answered different queries related to the dataset.
- **Cloud Computing Architecture (IBM Bluemix)** **January 2016 – May 2016**
 - Used IBM Bluemix cloud platform to build and manage private clouds.
 - Also, used OpenNebula to manage clouds with VMware ESX and Hybrid Cloud with Amazon EC2

RESEARCH PUBLICATION

- **A Survey on Routing in Vehicular Ad-Hoc Network (Purdue School of Science)** **December 2018**
 - Understand the concept behind Vehicular Adhoc network (VANET).
 - A brief comparison between Dedicated Short-Range Communication (DSRC) and other routing protocols.
 - Analyze different vehicular routing process and different safety applications.
- **A Survey on Security in Vehicular Ad-Hoc Network (Purdue School of Science)** **December 2018**
 - Vehicle-to-vehicle (V2V) communication explained. Challenges regarding automotive safety and security.
 - Discussion on legacy routing protocols like CAN, LIN, FlexRay and the security concern over them.
 - A detailed discussion on protocols for VANET like MAC, DTMAC, TDMAC and probable solution for security in the future.
- **Study of Deep Web and a new Form-based Crawling Technique (IJCTET) Vol 7-page 36-44** **February 2016**
 - A hidden web crawling technique with a keyword-based form interface and a multi-attribute searching technique.
 - Concerned with people database. With formidable results and accuracy after analyzing.

CERTIFICATIONS

- HTML5, CSS, WordPress
- Java Programming Language using Java SE8
- Big Data Analytics, Tableau
- Oracle DB2, SQL, PL/SQL
- Cloud Computing from IBM Bluemix