

Sumit Tamgale

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EXPERIENCE

BLUE CROSS BLUE SHIELD ASSOCIATION

Chicago, IL

Programmer - Enterprise Data Services

Fall 2019 - Present

- Improved the overall data exchange efficiency by 30% using dynamic attribute caching
- Used generic sanity checks and exception handling on multiple levels to improve the accuracy by 20%
- Increased the security and reliability of the platform by forcing secure key exchange for RSA encryption

Intern - Enterprise Data Services

Summer 2019

- Reduced reporting-data validation time by 60% using dynamic rule engine implemented in a python package
- Used dynamically configurable generic connector methods to increase scalability and maintainability
- Eliminated the database query execution bottleneck using multi-threaded controller-dispatcher architecture

SARVAHA SYSTEMS

Pune, India

Software Engineer

May - Aug 2018

- Reduced the human input required by 30% using automated conversational models in a customer-support chatbot system
- Improved scalability and flexibility of the chatbot by incorporating modular design in the system with minimal rework
- Significantly improved the applicability by implementing generic data connectors using standard NLP models

Software Engineering Intern

Spring 2018

- Reduced filter time by 40% using targeted deep learning models to transform raw data into json format
- Achieved a minimum F1 score of 0.87 for the models using an ensemble architecture of neural network and CRF model
- Enabled overtime accuracy gain by implementing iterative learning at multiple levels of the ETL operation

SWISH TECH

Pune, India

Web Development Intern

Nov 2016 - Apr 2017

- Achieved practically 0% data loss in beacon data transmission by implementing active listeners to monitor REST API calls
 - Enabled device authentication without no additional transmission load by utilizing basic authentication tokens
 - Reduced effective data storage by 25% by performing analytics and sampling on the transmission data in real-time
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EDUCATION

ILLINOIS INSTITUTE OF TECHNOLOGY

Chicago, IL

Master of Computer Science

Fall 2018 - May 2020

- Coursework: Advanced Algorithms, Machine Learning, Computer Vision, Software Architectures, OO-Application Development, Advanced Databases, Geospatial Visualization, Software Project Management, Cloud Computing, NLP

SGGS INSTITUTE OF ENGINEERING AND TECHNOLOGY

Nanded, India

Bachelor of Technology - Computer Science & Engineering

Fall 2014 - May 2018

- Major Coursework: Data Structures, Algorithms, Statistics, Calculus, Database Systems, Operating Systems, Software Engineering, Unix Systems, Networking, Machine Learning, Discrete Mathematics, Computer Architecture, Cryptography
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PROJECTS

DISGUISED FACE CLASSIFICATION MODEL ([Link to code](#), [Link to paper](#))

Aug - Dec 2017

- Increased the accuracy 8% using k-fold cross validation combined with filtered sampling of the training dataset
- Enabled disguised face classification by training the deep convolutional neural network on custom curated robust dataset
- Proved the applicability of the model to ATM fraud-transaction detection and prevention using simulated environments

CATEGORY BASED VIDEO EXPLORER ([Link to problem](#))

Dec 2016 - Apr 2017

- Enabled video categorization by implementing stacking of decision tree classifiers for data scraped from web pages
- Reduced the server load by 80% using the original host servers to stream the videos and active resource validation

CHESS CLOCK SIMULATOR ([Link to code](#))

Aug - Oct 2016

- Achieved zero latency by utilizing event listeners to control the clock synchronously in a single threaded environment
 - Improved robustness and security by embedding the simulator in Java applet to run in browsers
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LANGUAGES AND TECHNOLOGIES

- **Languages:** Proficient in Java, Python, C; familiar with C++, JavaScript, SQL, PHP, R
 - **Frameworks:** Proficient in Spring, jQuery, Bootstrap, Flask; familiar with AngularJS, Node.js, TensorFlow, RASA
 - **Technologies:** Proficient in Git, MySQL, Unix/Linux; familiar with AWS, Docker, Elasticsearch, Oracle DB, Android
 - **Skills:** Proficient in Object-Oriented Programming, Machine Learning, REST API; familiar with NLP, Computer Vision
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HONORS AND AWARDS

- Best Paper Award - IEEE International Conference on Computational Intelligence and Computing Research 2017
- Winner - Smart India Hackathon 2017, Ministry of Science and Technology, Govt. of India
- Winner - C Brain 2017, 2018 - The annual inter-college programming competition
- Runner up - Code-em-gamble 2016 - An intra-college programming competition
- Ranked 549 & 686 globally in CodeVita 2016 round 1 & 2 respectively