

# Sumit Tamgale

[stamgale@hawk.iit.edu](mailto:stamgale@hawk.iit.edu) · +1 (312) 687-3088 · [sumittamgale.me](http://sumittamgale.me) · [linkedin.com/in/sumitbtamgale](https://www.linkedin.com/in/sumitbtamgale) · Chicago, IL 60616

---

## EDUCATION

### ILLINOIS INSTITUTE OF TECHNOLOGY

M.S. Computer Science | Software Engineering Specialization

Chicago, IL

Aug'18 - May'20

- Relevant Coursework: Design and Analysis of Algorithms, Machine Learning, Computer Vision, Geospatial Vision and Visualization, Software Systems Architectures, Object-Oriented Application Development
- GPA: 3.0/4.0

### SGGS INSTITUTE OF ENGINEERING AND TECHNOLOGY

B.Tech. Computer Science & Engineering

Nanded, MH, India

Aug'14 - May'18

- Relevant Coursework: Data Structures, Algorithms, Statistics, Calculus, Database Systems, Operating System Concepts, Software Engineering, Unix System Programming, Networking, Distributed Computing, Neural Networks
  - GPA: 7.27/10.0
- 

## WORK EXPERIENCE

### BLUE CROSS BLUE SHIELD ASSOCIATION

Intern - Enterprise Data Solutions (EDS)

Chicago, IL

Jun'19 - Aug'19

- Automated data validation processes by extending Product Verification (PV) automation suite with scalable python modules
- Significantly reduced data validation operations' speed by reimplementing the modules using controller dispatcher architecture
- Collaborated with EDS team during development, testing, deployment and documentation phases of the PV automation suite

### SARVAHA SYSTEMS

Software Engineer

Pune, MH, India

May'18 - Aug'18

- Developed and deployed a customizable customer support chatbot system in Python and JavaScript using RASA framework
- Enabled a very high degree of configuration options in the admin console by re-engineering the backend design
- Developed data connectors to import knowledge in chatbot from various sources(FAQs, manuals, etc.) by using NLP models

Software Engineering Intern

Jan'18 - Apr'18

- Developed an information retrieval system to perform logical search queries on raw resume files in Java using Deeplearning4j
- Achieved an F1 score of 0.87 for the IR model by using an ensemble method of neural networks and CRF models
- Reduced resume filtering time by 40% by integrating the application with an existing HR management system in the company

### SWISH TECH

Web Development Intern | Backend Team

Pune, MH, India

Nov'16 - Apr'17

- Developed secure REST API in Java to perform real-time event management and analysis in Java using Spring framework
  - Reduced development time by 25% by collaborating with the project manager to design software architecture and data model
  - Significantly improved application security by adding encryption to basic authentication
- 

## SELECTED INDEPENDENT PROJECTS

### DISGUISED FACE CLASSIFICATION MODEL ([LINK TO PAPER](#))

Aug'17 - Dec'17

- Designed and developed an application to identify disguised faces using a deep convolutional neural network model
- Achieved an accuracy of 0.91 by using cross validation and training the model on a custom developed robust dataset
- Tested the model in a simulated ATM system for preventing fraud ATM transactions by identifying disguised faces

### CATEGORY BASED VIDEO EXPLORER

Dec'16 - Apr'17

- Developed an application to browse and watch category based videos available on any public server in Java and Python
- Reduced significant server load by streaming videos from original host server using dynamically scraped video URLs
- Achieved high efficiency of web scraper by eliminating database bottleneck using a separate assistive process

### CHESS CLOCK SIMULATOR

Aug'16 - Oct'16

- Developed a standalone application to manage chess tournaments and simulate chess clock in Java using JavaFX and Threads
  - Achieved highly efficient clack simulation by using a single thread implementation controlled by events
  - Extended the application by exposing the simulator through URL call using Java applets
- 

## SKILLS & INTERESTS

- Languages/technologies: Proficient in Java, Python, JavaScript, SQL; familiar with PHP, R, MATLAB; previously used: C, C++; Experienced with jQuery, AngularJS, Node.js, Spring, TensorFlow, Elasticsearch, Git, Amazon Web Services, Docker, MySQL, Oracle DB, Android, Unix/Linux, Flask, Selenium
  - CS Skills: Machine Learning, Object-Oriented Programming, Natural Language Processing, Image Processing, Computer Vision, Software Design, RESTful web services
- 

## HONORS & AWARDS

- Best Paper Award - IEEE International Conference on Computational Intelligence and Computing Research 2017
- Winner - Smart India Hackathon 2017 (Department of Biotechnology), Ministry of Science and Technology, Govt. of India
- Winner - C Brain 2017 - SGGS Institute of Engineering and Technology, Nanded MH, India
- Runner up - Code-em-gamble 2016 - SGGS Institute of Engineering and Technology, Nanded MH, India
- Ranked 549 & 686 globally in TCS CodeVita 2016 round 1 & 2 respectively