

# Saagar Minocha

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## SUMMARY

Seeking a challenging and exciting software engineering position where I can sharpen my skills and build upon my strong background as a web/mobile developer. I am a fast learner with a knack for picking-up new languages and technologies on the go.

## EDUCATION

**Master's in Computer Science at Texas A&M University (GPA: 3.57/4.00)**

Aug. 2017 - Present

**Bachelor's in Computer Science at Bharati Vidyapeeth's College of Engineering, New Delhi, India (%: 82 ~GPA: 3.80/4.00)**

Aug. 2011 - May 2015

## SKILLS & TECHNOLOGIES

**Skills** - Full-stack Development, Mobile Application Development, Applied Machine Learning.

**Technologies** - Python, C#, JAVA, C/C++, Raspberry Pi, MongoDB, PostgreSQL, MySQL, Git, .NET framework, Ruby on Rails, sklearn, keras, pandas, Bootstrap, JavaScript, AngularJS, Angular2+, NodeJS, HTML5, CSS3, SASS, Ionic, Native Android/iOS

**Grad. Coursework** - Artificial Intelligence, Machine Learning, Information Retrieval, NLP, Deep Learning, Distributed Systems

## EXPERIENCE

**App. Developer at Applied Cognitive Ergonomics Lab ... Wearables, Applied ML**

June. 2018 - Present

- Created physiological signal detection features for a sensor-focused smart wearable app to monitor therapeutic progress for PTSD patients.
- Implemented a complete machine learning pipeline from data ingestion to model evaluation stage. Trained and deployed models on mobile systems. Analyzed heart-rate data for ~100 PTSD patients using supervised learning (random forests) and unsupervised learning (DNN).

**Graduate Assistant (App Dev.) at Division of Student Affairs, IT ... Full-Stack (.NET)**

May. 2018 - Present

- Developed a 3-tiered MVVM web application. Worked across functional and project teams in an Agile environment with a CI process flow.

**Cloud Computing & Distributed Systems ... Docker, Python CLI**

Jun. 2018 - Aug. 2018

- Conducted feasibility studies and cost analysis to recommend effective cloud solutions. Created an interactive Python wrapper for Docker to handle unknown dependencies. Implemented a Python CLI to emulate a simple OpenStack API to manage instances, flavors & images.

**ML-aided Information Retrieval ... Data Analysis, NLP, RecSys, Python**

Jan. 2018 - Present

- Designed, implemented, and evaluated core algorithms for document indexing, retrieval, ranking, clustering and text categorization. Developed a book recommender system leveraging matrix-factorization to encourage reading & book discovery based on leveled reading.

**Student Programmer at Texas A&M Career Closet ... Web Development**

Aug. 2017 - Dec. 2017

- Created an MVC web application to manage inventory resources using Ruby on Rails and AngularJS. Followed BDD and TDD techniques in an agile environment featuring product iterations, daily scrums and pair programming. Developed REST API with Rails, integrated JSON Web Token Security, implemented UI modules and deployed the app on Heroku.

**Consultant at Lochbridge (an IoT subsidiary of DMI) ... Mobile App Development**

Jul. 2015 - Aug. 2017

- **Resource Scheduling & Productivity** - Platform (web and mobile) to track resources, people, tasks and expenses for professional IT services teams. Maintained and updated the web platform for resource tracking. Created mobile solution from scratch. Designed UI/UX wireframe models and Sencha Touch modules. Worked on App localization. Modified native Cordova plugins and contributed to app features like camera integration, push notifications and in-app notifications.
- **DijiWise** - Digital parenting platform enabling parents to monitor children's social media interactions. Conducted sentiment analysis on real-time unstructured data streams and of sensitivity of social media interaction followed by real-time notifications to guardians. Used MongoDB to handle real-time data reporting and analytics operations. Used SVM classification to categorize the posts according to positive or negative sentiments.
- **Internet of Things**: Responsive Accelerator framework featuring data management, analytics and a service portfolio. Gained exposure to real-time analytics platforms. Worked on a dashboard interface of the infotainment and telematics module for a 'Connected Car' project.

**Capstone Project on Advanced Driver Assistance System ... Computer Vision**

Aug. 2014 - Mar. 2015

- Built a Raspberry Pi based system with a touchscreen interface featuring a PyQT based GUI, lane departure warning system, facial recognition, rear-view camera stream, emergency SMS service and weather information.

**Software Engineering Intern at Wipro Info Tech**

Jun. 2014 - Jul. 2014

- **Service Delivery Platform (SDP) Operations** - Platform providing value added services with service life-cycle management. Acquired functioning knowledge of the platform and helped in delivery of content for WAP, SMS and MMS content on the platform.

**Programmer Intern at Computer Sciences Corporation**

Jan. 2014 - Jun. 2014

- **System Architecture Generation Tool**: ASP.NET application to generate an architecture diagram based on user data. Created a Web Form tool to input data along with an excel sheet variant. Used SQL Server and ADO.NET for data handling operations.

**Freelance Project on Biometric-enhanced Authentication ... Machine Learning**

Aug. 2013 - Apr. 2014

- Authentication based on not just password-content but also on biometric typing pattern. Implemented statistical clustering (k-means) and neural networks (MLP) using inter-key time and key-press time as feature vectors.

## AWARDS & ACTIVITIES

**Intel AI Student Ambassador** (2018-19), **Aggies Invent for Assistive Technology 2018** (Second Prize), **Aggie AI Society Webmaster** (2017-2018), **Dr. Homi Bhabha National Innovation Challenge 2015** (Silver Medalist), **Top 10% in graduating class** (2015), **Firefox Student Ambassador** (2014-15), **Microsoft Student Partner** (2013-15), **Google Developer's Group technical team leader** (2011-14), **IIT Delhi Tryst Campus Ambassador** (2014), **National Certificate of Merit in Computer Science** (Top 0.1% in 2011)