

AADITYA BHATIA

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About Me

Professional software developer having experience in engineering data science and software engineering solutions. With 3+ years of IT industry experience, I am adept at translating client requirements into business solutions. I have a strong focus on engineering research-based software solutions. I am a patent holder and have research publications in top software engineering journals.

Technical

Fluent: Python, R, SQL, Git, Java, Unix environments; Familiar with: Hadoop, Big Data, Cloud Services- GCP and AWS, Go, Scala, Tableau and Data Studio.
Python Libraries: Pandas, NumPy, Sci-kit learn, TensorFlow, Keras, PyTorch, Theano, OpenCV, CUDA, StatsModels, and NLP libraries.
Technologies: Data Warehousing, Algorithms, Data Science, Natural Language Processing, Image Processing.

Experience

2018-2019 **Software Analytics and Intelligence Lab, Queen's University** **KINGSTON, ON, CANADA**
Graduate Research Assistant

Formulated data science and data analytics research projects on social media platforms. **Published** research papers at **IEEE, Transactions of Software Engineering (TSE)**. Contributed to research-based improvements in the domain.

- Developed SQL based **data warehouses** for data analysis.
- **Queried** and **visualized** user behaviour using SQL, R, and Python.
- Built **predictive models** with machine learning in R and Python.
- Performed **Natural Language Processing** for user generated text analysis.
- Performed **quantitative analysis** to understand user phenomenon using *grounded theory* (open and axial coding).
- Built **deep learning** models on python using Keras, TensorFlow.
- Designed **feature engineering** for model **interpretability**.

2016-2018 **RESEARCH LABS, TATA CONSULTANCY SERVICES** **BANGALORE, INDIA**
Image Processing Developer, R&D

Engineered data-driven pipelines for research-oriented client projects.

- Built core algorithms incorporating **image processing** using *OpenCV* on *python*.
- **Engineered data processing pipelines** by implementing software solutions stitching core algorithms, database and front-end UI.
- Implemented **relational database** on MySQL to map user data, sensor data, and project intelligence.
- Engineered **rest services** on Flask for connecting disparate systems.
- Developed an **android application** incorporating design thinking for client requirements.
- Developed 3D models to perform 3D change detection and structural mapping.

2015-2016 **INNOVATION LABS, TATA CONSULTANCY SERVICES** **TRIVANDRUM, INDIA**
IoT software developer, R&D

- Developed and **patented** a hybrid reality based robot (Patent Id: US9760089).
- Engineered multiple **IoT** products using analog and digital sensors.

Education

2018-2019 **QUEENS UNIVERSITY** **KINGSTON, ON, CANADA**

M.Sc. in Computer Science (GPA-3.86): Awarded Queen's graduate fellowship, International Tuition Award, and scholarship from the research supervisor. *Thesis:* Leveraging crowdsourcing to improve issue management in software projects. **Publications:**

- 1) "A Study Of Bug Management Using Stack Exchange Q&A Platform", TSE 2019. (Published)
 - 2) "A Study Of Differences Between Bugs And Features Using Stack Exchange Q&A Platform", TSE. (In review)
- Selected coursework:** Data Mining, Deep Learning, Mining Software Repositories, Software Re-engineering, and Research Methodologies in Software Engineering.

2011-2015 **AMBEDKAR INSTITUTE OF COMMUNICATION TECHNOLOGIES AND RESEARCH** **DELHI, INDIA**
B.Tech in Electronics and Communication (First class with Distinction): Selected coursework (*Related to Software Engineering*): Database Management Systems, Computer Networks, Computer Architecture, Operating Systems, Software Engineering Practices, Data Structures, and Object-Oriented Programming.
Awards: Robotics competitions at IIT-D, IGIT, DTU, NPT; Constructed and presented an autonomous vehicle at a national level competition (SAVe, NIOT).

Certificates Google Cloud Platform Big Data and Machine Learning Fundamentals (coursera.org/verify/L8XYG9LSG4EV)