# ADITYA VARUN CHADHA

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## OBJECTIVE:

Engineering and Science for Search, Relevance and Discovery

## EXPERIENCE:

**Staff Software Engineer, Search, *TomTom Location Technologies GmbH* - Berlin, Germany**     09/22 - Present
- All things Search, Multi-Tier Search Architecture, Staff Engineering Community, Relevance, ML
- Lucene, Vespa, OpenSearch, ...

**Principal Software Engineer, OneSearch, *HERE Technologies* - Berlin, Germany**     09/18 - 08/22
- All things Search, relevance, ontologies, custom scoring/(re-)ranking, scalability, low-latency, distributed computing, core algorithms, query rewriting/planning, BYOD (search as a platform)
     Tools: Lucene, Java, Python, Scala, Kubernetes

**Senior Software Engineer, Search & Personalization, *Zalando SE* - Berlin, Germany**     10/16 - 08/18
- Core Search systems and API architecture, design and engineering. Engineering and architecture for data ingestion, tracking, query-understanding, re-scoring, machine-learned and personalized re-ranking, result-interleaving, tracing and relevance evaluation
- Ownership of core infrastructural services including Elasticsearch (previously Solr) clusters, Kafka, search gateway service

**Search and Analytics, *Getit Infoservices Pvt. Ltd.* - Gurgaon, India**     09/14 - 09/16
- Search, Data and Backend Systems, Technology Strategy as first IC hire in subsidiary: Askme.com
     Tools: Elasticsearch/Lucene-core, Kafka, Spark, PostgreSQL, MySQL, Neo4j, Redis, Scala, Python

**Senior Software Development Engineer, *Expedia, Inc.* - Gurgaon, India**     04/13 - 09/14
- Map-Reduce analytics pipelines, A/B Test analytics, Custom Hive plugins, UDFs/UDAFs, NRT APM analytics engines, Parsers/IOFormats, FSTs
- Technical leadership, technology evaluation and selection for the analytics stack
     Tools: Hadoop, Hive, Java, SQL Server, Spark

**Technical Lead, Search, *Cleartrip.com* - Bangalore, India**     01/12 – 03/13
- **Search and Recommendations** Engine design and implementation for Cleartrip's travel research and planning offering (SmallWorld).
- Data acquisition (**crawling**), aggregation and **de-duplication** framework for geographical data from multiple sources
- Extensive customization of **Lucene** for controlled **relevance**
- Built a near-real-time platform for search and analysis of **geographical** data
     Skills: Algorithms + Data Structures, Java, C++, Lucene internals, OpenNLP, Neo4j, Mahout, JavaCC, Redis, MongoDB, Ruby

**Search Architect, S. S. E., *Naukri.com (Info Edge (India) Ltd.)* - NOIDA, India**     04/08 - 01/12
- Architecture and development of single **search platform** and its integrations underlying all core offerings;
- **information retrieval** (acquisition, preprocessing, relevance, filtering, ranking, aggregation)
- **information extraction** (heuristics, rule-systems, supervised and unsupervised structure learning and analytics, matrices)
     Skills: Algorithms + Data Structures, Java, C++, Lucene internals, JavaCC, PHP

**Software Development Engineer (BI), *Microsoft India (R&D) Pvt. Ltd.* - Hyderabad, India**     10/06 - 04/08
**Associate, Technology (BI), *Sapient Corp. Pvt. Ltd.* - Gurgaon, India**     02/04 - 08/04
**Software Developer (Java)  , *EBusinessware, Inc.* - Gurgaon, India**     08/03 - 01/04

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## TECHNICAL PROFICIENCY:

- *Conceptual Areas***:** Information Retrieval, Algorithms, Data Structures, NLP, A.I., Distributed Systems, Data Engineering, Machine Learning (for Text and Search)
- *Programming Languages***:** Scala, Java, Python, ...
- *Tech***:** All major Search Engines, RDBMS, NOSQL, Streaming (Kafka, Flink), Spark

## ACADEMICS:

- **Graduate Education** (2004-2006)
  Institution:           Indian Institute of Technology, Madras, Chennai, India
  Degree Program: **Master of Science in Computer Science and Engineering**
  CGPA:              8.0/10.0
- **Undergraduate Education** (1999-2003)
  Institution:           Morehouse College, Atlanta, GA, USA
  Degree Program: **Bachelor of Science in Computer Science with minor in Mathematics**
  CGPA (CS):      3.70/4.00          CGPA (overall):  3.34/4.00
- **K-12 Education** (1985-1999)
  Institution:           Modern School, Barakhamba Road, New Delhi
  Board:              CBSE

## HONORS, ACHIEVEMENTS AND ACTIVITIES:

- **Info Edge Star Award** for Contributions to the Search Platform and its applications (2011)
- **Microsoft IT Deliver-IT award,** Microsoft, Hyderabad (2008)
- **Appreciation for Dev Community Contributions,** Microsoft, Hyderabad (2008)
- **Award for Outstanding Performance**, Dept. of Computer Science, Morehouse College (2003)
- **Second Place**, *Programming Contest*, Division Two - ACM Southeast USA Region (2001)
- **Third Place**, *Programming Contest*, Division Two - ACM Southeast USA Region (2002)
- **First Place,** *Computer Science Olympiad*, Spelman College (2003)
- **First Place**, *Programming Contest*, Atlanta University Center (2001)
- **Full Academic Scholarship**, Morehouse College (Fall 1999 - Spring 2003)
- **Best Computer Programmer**, Modern School, India (1998 - 1999)
- **Excellence in Organizational Ability**, Modern School, India (1998 – 1999)
- **President**, Computer Science Club, Morehouse College (2001 - 2002)
- **Captain**, Programming Team, Modern School, New Delhi, India (1998 – 1999)

## CONTACT INFORMATION:

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