

# PEDRAM GHODSNIA

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## SUMMARY OF QUALIFICATIONS

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- A quick learner, self-starter, result-oriented, and energetic entrepreneur, eager to explore unknown territories
- Over twelve years work experience in industry and ten years research experience in academia
- Expert in data management systems, data engineering technologies, and cloud services
- Experienced in full-stack software development, contributed to repositories with over a million lines of code
- Skilled at technical and administrative management and supervision
- Contributed to five startups, co-founded three of them, and grown one to +50 employees
- Two patents and twelve published research papers in refereed journals and conferences

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## INDUSTRIAL EXPERIENCE

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- **CTO – Brite Health** 2017- Present
  - Led all technical aspects of the company's products and services including architecture, design and development of iOS and Android mobile apps, web apps, backend API, AI engine, data science projects, and data engineering pipelines
  - Designed, deployed, secured, and maintained the cloud infrastructure over Amazon AWS and GCP
  - Contributed extensively to the process of preparing required documentations for HIPPA compliance of the company's products, especially in the areas such as privacy, security, code quality, audit trails, disaster recovery planning, and risk analysis
- **Co-Founder/VP of Engineering – Suntut Inc. (Sylresc Smart Tag)** 2016 - 2017
  - Led all technical aspects of the software stack of the company, including architecture, design, development and maintenance of iOS app, Android app, web app, online store, and data analytics tools
  - Designed, deployed, secured and maintained the cloud infrastructure on Google Cloud Platform
  - Conducted R&D projects for improving the quality and functionality of the products
- **Co-Founder/VP of Engineering/CTO – Quantaad Inc.** 2014 - 2016
  - Architected, designed and led the development of a full-fledged ad network for mobile platforms
  - Built, configured, deployed and maintained the cloud infrastructure of the company on Azure and GCP
  - Integrated the ad network with third party ad providers, as well as publishing platforms such as Wordpress
- **Search Engine Consultant/Developer – Citlan Inc.** 2012 - 2014
  - Improved performance and enhanced the ranking quality of an app search engine based on Solr/Lucene
  - Implemented a high performance auto-complete component for the search engine
  - Enhanced the database performance, the data processing pipelines, and web scraping tools
- **Graduate Intern – SAP** 2013
  - Investigated the impact of employing solid state drives (SSDs) in query processing and optimization
  - Proposed and implemented a production quality version of a feature for improving the query optimizer of the DB which resulted in up to 20X improvement in execution runtime of a class of database queries
  - Filed a U.S. patent and published a research paper in SIGMOD 2014 conference
- **Graduate Intern – SAP** 2012
  - Studied the possibility of utilizing modern hardware to improve the performance of the database engine
  - Studied the impact of utilizing solid state drives in SAP SQL Anywhere database management system, performed a comprehensive experimental study over a variety of database configurations, and published the results as a white paper
  - Proposed and implemented a novel approach for exploiting SSD as a persistent second level buffer pool for database engine which resulted in more than 3X improvement in transactional throughput compared to competitors - Modified several modules of the DBMS engine including cache management, I/O management, checkpoint process and recovery - Filed a U.S. patent for the proposed approach

- **Technical Consultant** – *Career Development and Employment Centre, Ryerson University, Toronto* 2010
  - Proposed an innovative solution for automatic information extraction in a modern career search engine
- **IT Consultant** – *University of Shabid Beheshti, Tehran, Iran* 2007 - 2008
  - Consulted the university in selecting the best ERP solution based on its requirements and constraints
- **Co-Founder/Chairman/CTO** – *Zero and One Information Technology* 2002 - 2008
  - Co-founded the company, designed and developed its IT infrastructure, hired, trained and supervised the engineering teams
  - Architected and led several enterprise software development projects for large government organizations as well as SMEs, including web content management system, e-commerce website, inventory management system, CRM, process automation, etc.
  - Prepared several project proposals, performed several product presentations, closed over fifteen big contracts, and communicated effectively with the customer representatives during their project life-time
  - Supervised the R&D team and utilized the R&D results in providing innovative solutions for customers
- **Freelance Developer** 2001 - 2002
  - Designed and developed an integrated shopping, inventory management and CRM solution, a flash-based website for presenting products and services of an advertising agency, and several interactive flash-based applications for teaching algorithm design course, part of a big e-learning project
- **Lecturer/Teaching assistant** 2005 - 2016
  - Lecturing *Pascal Programming, C++ programming, data structures* and *operating systems* courses at the University of Applied science and Technology in Iran
  - Teaching assistance of the following courses at the University of Waterloo: *Database Management* (11 terms), *Database Systems Implementation* (1 term), *Intro to Computer Science 2* (2 terms), *Computer Applications In Business: Databases* (4 terms), *Data structures* (1 term)

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## EDUCATION

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- **PhD in Computer Science**, *University of Waterloo* (GPA: A+) 2018
- **M.Sc. in Software Engineering**, *University of Tehran* (GPA: 18:58/20.00) 2008
- **B.Sc. in Computer Science**, *University of Tehran* (GPA: 17:23/20.00 – top student) 2004

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## SKILLS

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- **Languages/Tools/Frameworks/Platforms:** C/C++, CUDA C, Java, C#, Delphi/Pascal, Scheme, Python, Objective-C, Swift, R, Asp.net, PHP, Shell Script, MPI, Action Script, HTML5, CSS, Bootstrap, Java Script, JQuery, Sass, Solr, Lucene, YII, Django, Laravel, AngularJS, Selenium, Wordpress, Joomla, DotNetNuke, Apache Drill, Hadoop, Spark, Kafka, Logstash, Elasticsearch, Kibana, Sketch, Celery, Jupyter Notebook, Scikit-learn, Pandas, Numpy, Matplotlib, GIT, Perforce, SVN, Slack, Trello, Amazon AWS, Microsoft Azure, Google Cloud Platform, MS SQL Server, MySQL, PostgreSQL, Oracle, SAP SQL Anywhere, DB2, FoxPro, Access, MonetDB, SQLite, Redis, Cassandra, MemSQL

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## PUBLICATIONS

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- I have two US patents and twelve published research papers in refereed international conferences and journals. Please see the list of my publications at <http://bit.ly/pedram-publications>

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## ACTIVITIES AND INTERESTS

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- Hiking with friends, table tennis, swimming, biking, reading technology and entrepreneurship news, listening to software engineering and data engineering podcasts, digital arts, photography, graphics, and animation