Nima Aghdaii

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Work

Snap Inc.

2021 - Present	**Technical Lead Manager**
2020 - 2021	**Staff Software Engineer**
2016 - 2020	**Technical Lead**

As an early engineer in the Monetization org, I designed, implemented and lead many projects in Ads Marketplace and Ads Infrastructure. I currently support the Ads Marketplace team, responsible for the ads revenue and ads performance.

ADS MARKETPLACE

- **Ads Optimization:** Auction, bidding, pricing and support for various delivery constraints, bidding strategies and optimization goals.
- **Budget Pacing:** Spend advertiser budget efficiently to achieve their performance goals.
- **Reserved Ads:** Provide a forecast and allow advertisers to reserve a portion of the inventory.

ADS INFRASTRUCTURE

I have also designed and implemented significant portions of our ads infrastructure.

- **Configment (Configuration Management Framework):** Configuration as code to leverage inheritance, composition, modularity, validation, protobuf support, etc. It grew organically over time and now is adopted by every team in the org.

- **Megaphone:** Low latency message broker leveraging grpc streaming to deliver 100k qps. Designed and implemented as a generic framework that now serves more than 10 critical projects and is also the backbone of our auction and pacing infrastructure.

- **Spider:** A mobile friendly framework for building internal web pages at Snap. You can create interactive pages, query backend or cloud services and visualize data using graphs and charts.

- **High Cardinality Metrics Ingestion Pipeline:** The infrastructure for ingesting 1B+ unique metrics which are updated every mintue.

- **Ads Monitoring Framework:** Monitoring framework that provides isolation and parallelism, with a declarative interface allowing for realtime monitoring of the ads in the system.

Facebook Inc.

2012 - 2013	**Software Engineer**
2013 - 2016	**Senior Software Engineer**

Scope:
- Ads (Storage, Ranking and Delivery Infrastructure)
- Spam Fighting (Machine Learning Infrastructure)

- Report Flows (Infrastructure for user reports, automation, etc.)

Softree Co.

Summer 2010 **Software Engineer Intern**
Project:
- Implemented out of core (on-disk) geometric simplification for large triangular meshes.

Education

2009 - 2012 **M.Sc. Student**, *CS Dept*, Simon Fraser University, Canada. (GPA=4/4).

2008 - 2009 **M.Sc. Student**, *CS Dept*, Sharif University of Technology, Iran.

2003 - 2008 **B.Sc. Degree**, *CS Dept*, University of Tehran, Tehran, Iran.

1996 - 2003 **High School Diploma in Math and Physics**, *NODET*, Tehran, Iran.
(National Organization for Development of Exceptional Talents)

Awards and Honors

2010 **Graduate Fellowship Award**, *SFU*, Vancouver, Canada.

2009 **ACM/ICPC Coach**, *Tehran*, Iran.

2008 **ACM/ICPC World Finalist**, *Alberta*, Canada.

2007 **5th place**, *ACM/ICPC Regional Site*, Tehran, Iran.

2006 **6th place**, *ACM/ICPC Regional Site*, Tehran, Iran.

2006 **Certificate of education in J2SE/J2EE programming from ACM**, *Tehran*, Iran.

2005 **Honorable Mention**, *ACM/ICPC Regional Site*, Tehran, Iran.

Patents

2021 **Auction System For Augmented Reality Experiences In A Messaging System**, *Nima Aghdaii, Riccardo Boscolo, Rodrigo B. Farnham, Jean Luo, Kevin Lee Penner, Vincent Sung*.

Papers

2012 **5-6-7 Meshes**, *Nima Aghdaii, Hamid Younesy, Hao Zhang*, Graphics Interface 2012, Toronto,Canada.

2012 **5-6-7 Meshes: Remeshing and Analysis**, *Nima Aghdaii, Hamid Younesy, Hao Zhang, Computer & Graphics*, Vol. 36, No. 8, pp. 1072-1083, 2012.
(extended version of GI'12 paper)

Technical Skills

Programming C, C++, Java, Python, PHP, TypeScript