Sajjad Rahnama

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DBLP | Linkedin | Google Scholar

EDUCATION

Ph.D. in Computer Science, University of California, Davis, CA, USA **Sep 2018 – Present**

- **Advisor:** Prof, Mohammad Sadoghi(mo.sadoghi@ucdavis.edu)
- **Course Work:** Completed, **GPA 3.97**
- **Research Focus**: Distributed Fault Tolerant Protocols, BFT Consensus Algorithms, Secure Transaction Processing
- **Organizations:** Blockchain at Davis (BAD)

Bachelor of Science in Computer Engineering, Tehran Polytechnique, Tehran, Iran **Sep 2013 – Aug 2018**

- **GPA: 3.6**
- **Related Courses:**
  - Principles of Database Design
  - Data Structures and Algorithms
  - Data Storage and Information Retrieval
  - Design of Algorithms
  - Artificial Intelligence
  - Foundations of Matrix and Linear Algebra

PUBLICATIONS

- **Sajjad Rahnama**, Suyash Gupta, Jelle Hellings, Mohammad Sadoghi: ResilientDB: Global Scale Resilient Blockchain Fabric, Proceedings of the VLDB Endowment(**VLDB 2020**)[reproducibility badge]
- **Sajjad Rahnama**, Suyash Gupta, Thamir Qadah, Jelle Hellings, Mohammad Sadoghi: Scalable, Resilient and Configurable Permissioned Blockchain Fabric. Proceedings of the VLDB Endowment (**VLDB 2020**)
- **Sajjad Rahnama**, Suyash Gupta, Mohammad Sadoghi: Permissioned Blockchain Through the Looking Glass: Architectural and Implementation Lessons Learned, 2020 International Conference on Distributed Computing Systems (**ICDCS 2020**)
- Suyash Gupta, Jelle Hellings, **Sajjad Rahnama**, Mohammad Sadoghi: An In-Depth Look of BFT Consensus in Blockchain: Challenges and Opportunities. 20th ACM/IFIP International Conference **Middleware 2019**
- Suyash Gupta, Jelle Hellings, **Sajjad Rahnama**, Mohammad Sadoghi: Blockchain Consensus Unraveled: Virtues and Limitations, 2020 Distributed Event-Based Systems (**DEBS 2020**)

RESEARCH AND PROJECTS

- **ResilientDB, A Permissioned Blockchain Fabric** **Jan 2019 - Present**
  - **Role:** Design, Architect, and Implementation
  - High-throughput Yielding Distributed ledger built upon scale-centric design principles to democratize and decentralize computation written in **C/C++**. [**website**][**source code**]
  - **Design and Architect:** re-architected and re-imagined modular system design from scratch that embeds parallelism and deep pipelining at every layer to fully exploit modern hardware and cloud infrastructure globally
  - **Core BFT Protocols:** Implementing modern BFT protocols such as Zyzzyva, PBFT, Hotstuff
  - **Web Dashboard:** Admin dashboard for fabric using **React/Node JS/Nginx/Influx**
- **L-Store: A Real-time OLTP and OLAP System** **Feb 2020**
  - **Role:** Design and Implementation
  - lineage-based storage architecture, a contention-free update mechanism over a columnar storage
  - Implementing L-Store in Python from the scratch as TA for Database Design Course at UC Davis

PROFESSIONAL EXPERIENCE

Senior Web Developer at Papion [website], Tehran Iran **Feb 2015 – Sep 2018**

- **Role:** System Designer and Technical Consultant, Senior Backend and Frontend Developer
- Food and recipe social media labeled as "Sarashapz Papion" with more than a million users. (JavaScript, Angular, PHP, Docker, Laravel, MySQL, MongoDB, InfluxDB, Redis, HTML5, CSS, SASS)

Senior Web Developer at Fandogh Co., University Based Startup, Tehran, Iran **JAN 2015 – MAY 2016**

- **Role:** Senior Backend and Frontend Developer
- Under supervision and supported by Tehran Polytechnique university's Roshd institution
- A news platform for university organizations frontend and backend written with PHP, Laravel, Angular
- Food Reservation system for the students, web and mobile App frontend and backend

TEACHING EXPERIENCE

Teaching Assistant at University of California Davis, CA

- ECS 265: Distributed Database Systems [Fall 2019, Fall 2020][website]
- ECS 165: Database Systems [winter 2019][website]

Teaching Assistant at Tehran Polytechnique, Tehran

- Principles of Programming [Fall 2014]
- Discrete Structures [Spring 2015][By Mehran S. Fallah]
- Introduction to Web Development [Fall 2015, Spring 2016][By Bahador Bakhshi]

SKILLS

Programming: C/C++ – Python – Java – JavaScript – Bash – PHP
Frameworks: ReactJS – Laravel – Angular – NodeJS – Express JS
Services and Systems: Google Cloud Platform - AWS - Docker- SQL - Linux and Bash - Git - LaTeX

REFERENCE

Prof. Mohammad Sadoghi:

- **Affiliation:** Assistant Professor in the Computer Science Department at the University of California, Davis
- **Email:** msadoghi@ucdavis.edu
- **Website:** msadoghi.github.io

More references will be provided upon request