AMIN KARBAS

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EDUCATION

9/2021 - Present UNIVERSITY OF CALIFORNIA, SANTA CRUZ

Santa Cruz, CA

Ph.D., Computer Science and Engineering

• Focus: Applied Cryptography

9/2016 - 7/2021 SHARIF UNIVERSITY OF TECHNOLOGY

Tehran, Iran

B.S., Computer Science

- GPA: 3.7/4.0
- Coursework: Operating Systems, Parallel Programming and Architecture, Computer Networks, Data and Network Security, Distributed Systems and Blockchains, Bioinformatics, Image Processing
- Voluntary member of the Sharif Green Society, advocating for environmental protection
- Voluntary organizer of seminars in the scientific chapter of the Mathematics and Computer Science department

EXPERIENCE

8/2020 - 12/2020 MAX PLANCK INSTITUTE FOR INFORMATICS

Saarbrücken, Germany

Research Intern

- Collaborated with Dr. Oliver Gasser in Prof. Anja Feldmann's research group
- Investigated the impact of changes in TLS certificate lifetime requirements enforced by user-agents
- Designed a pipeline to collect and stay up to date with Certificate Transparency Logs' data
- Analyzed 11B records from all available Certificate Transparency Logs
- Accumulated 5 billion TLS certificates for further active measurements

7/2018 - 5/2021 **SOTOON (CAFEBAZAAR CLOUD)**

Tehran, Iran

Data Infrastructure Engineer

- Built the platform to transfer, store, and analyze big data at petabyte scale for multiple user-facing apps with 84M+ active users across Android, iOS, and web
- Researched and provided strategic recommendations for solutions architecture including Apache Druid for OLAP and Presto for SQL on Hadoop
- Set up and/or maintained Apache {Druid, Kafka, Hadoop, Spark, Zeppelin, ZooKeeper} and M3DB clusters/services; Designed currently running probers and high-accuracy billing systems for them
- Scaled the storage cluster from 10s of terabytes to petabytes (100x)
- Developed Kubernetes operators to manage Apache {Kafka, Hadoop, ZooKeeper} clusters in a Platform as a Service environment
- Created mentorship documents and mentored new team members

7/2017 - 9/2017 **SAHAB PARDAZ**

Tehran, Iran

Data Engineering Intern

- Developed a distributed and highly available web search engine indexing millions of websites
- Developed and maintained a document index/fetch wrapper for ElasticSearch

ADDITIONAL INFORMATION

TECHNICAL SKILLS

- **Proficient in** Docker, Kubernetes, Apache {Druid, Hadoop, Kafka, Zeppelin, ZooKeeper}, HashiCorp Nomad, GoLang, Python, GNU/Linux, Git, LaTeX
- Experienced with Apache Spark, Java, Scala, HashiCorp Vagrant, Prometheus, M3DB, PostgreSQL, Google {Docs, Sheets, Slides}

HONORS AND AWARDS

- Scored **99.6 percentile** in 2016 Iranian nationwide university entrance exam in Mathematics & Physics (STEM)
- Scored 99.8 percentile in 2016 Iranian nationwide university entrance exam in Foreign Language Studies

INTERESTS

- Research Interests include: Applied Cryptography, Operating Systems, Architecture, Storage/File Systems, Distributed/Cloud Computing, Security
- **General Interests include:** Mountain Biking, Dancing, Mental Health Awareness, Gender Equality, Environmental Protection, Distributed and Scalable Software