Mohammadamin Karbasforushan

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Last updated 2020-12-01

EDUCATION

Sharif University of Technology, Tehran, Iran   Sep 2016 − Present
- Pursuing BS in Computer Science; To be conferred June 2021. Current GPA – 3.3 / 4.0
- Coursework includes Computer Networks, Data and Network Security, Distributed Systems and Blockchains, Operating Systems, BioInformatics, Image Processing
- Organized seminars in Hamband, the scientific chapter of the Mathematics and Computer Science department
- Member of the Sharif Green Society, advocating for environmental protection

National Organization for Development of Exceptional Talents (NODET), Tehran, Iran

Allameh Helli 5 High School   Sep 2012 − Jun 2016
- Ranked in the top 0.4% of participants in 2016 nationwide university entrance exam in Mathematics & Physics
- Ranked in the top 0.2% of participants in 2016 nationwide university entrance exam in Foreign Language Studies
- Diploma In Mathematics And Physics; GPA – 4.0 / 4.0

EXPERIENCE

Internet Measurements Research Intern, Max Planck Institute for Informatics, Saarbrücken, Germany
- Collaborated with Dr. Oliver Gasser in Prof. Anja Feldmann's research group   Aug 2020 − Present
- 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 data from all available Certificate Transparency Logs
- Accumulated 5 billion TLS certificates

Data Infrastructure Engineer, Sotoon (Cafe Bazaar Cloud), Tehran, Iran   Jul 2018 − Present
- Built the platform to transfer, store, and analyze big data at petabyte scale for multiple user-facing apps with 65M+ 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
- Mentored and supervised junior team members to facilitate team growth to provision new in-demand services
- Coordinated intra-team work processes and increased productivity and efficiency

Data Engineering Intern, Sahab Pardaz, Tehran, Iran   Jul 2017 − Sep 2017
- Developed a distributed and highly available web search engine indexing millions of websites
- Set up, maintained, and wrote a document index/fetch wrapper for ElasticSearch

SELECTED COURSE PROJECTS

Buffer Overflow, Format String, XSS, SQL Injection, and ARP Poisoning Attack Implementation
(Data and Network Security)   Fall 2019

DHCP, UDP Hole Punching, and BGP Implementation
(Data Transfer and Computer Networks)   Spring 2019

Gene Expression, Gene Ontology, and Pathway Analysis with R
(Introductory BioInformatics)   Spring 2019

Blockchain/Cryptocurrency Analysis Platform
(Data Engineering)   Spring 2019

Crowdfunding Ethereum Smart Contract
(Foundations of Blockchain Technology and Cryptocurrencies)   Fall 2018

Checkers AI with Minimax and Alpha-Beta Pruning
(Analysis of Algorithms)   Spring 2018

CPU Design With Verilog and Quartus
(Principles of Computer Systems)   Fall 2017

Tic-Tac-Toe with AI adversary in MIPS assembly
(Principles of Computer Systems)   Fall 2017

SELECTED COURSES		
Data Transfer and Computer Networks		20.0 / 20.0
Data Engineering		20.0 / 20.0
Advanced Programming		19.0 / 20.0
Principles of Computer Systems		18.7 / 20.0
Fundamentals of Computers and Programming		18.5 / 20.0
Data and Network Security		18.0 / 20.0
Database Systems		17.8 / 20.0
Introductory BioInformatics		17.6 / 20.0
Principles of Image Processing		17.2 / 20.0
Foundations of Blockchain Technology and Cryptocurrencies (Graduate Course)		16.6 / 20.0

ADDITIONAL INFORMATION

RESEARCH INTERESTS
- **Systems Engineering** – Distributed Systems, Computer Networks, Operating Systems, Security

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

TEST SCORES
- **TOEFL iBT** score: 115 (Reading 30, Listening 30, Speaking 28, Writing 27)
- **GRE General Test** score: Quant 169, Verbal 155, Writing 4.0

LANGUAGES
- Fluent in English; Native speaker of Farsi

INTERESTS
- Mountain Biking, Dancing, Cooking, Rock Music, Electronic Gadgets, Distributed and Scalable Software, Cloud Native Software, Computer Gaming, Gender Equality

CONFERENCE ATTENDANCE
- CT Days 2020 (on Certificate Transparency)
- ACM IMC 2020