

Abdullah Ahmad Zarir

✉ abdullahzarir@gmail.com | 🌐 [zargit](#) | in [abdullahzarir](#)

Experience

Stratocore Inc. | [stratocore.com](#)

Ottawa, ON, Canada

SOFTWARE ENGINEER

Mar. 2024 - Present

- Automation, DevOps, Integration, Optimization, Security, Cloud, RAG ... issues requiring problem solving skills.

Amazon, Automatic Profitability Management | [amazon.com](#)

Vancouver, BC, Canada

SOFTWARE DEVELOPMENT ENGINEER I

Mar. 2020 - Mar. 2023

- Designed and partially implemented a data lake infrastructure catered towards serving MLOps pipelines.
- Worked with data scientists, product managers and other teams to automate multiple MLOps pipeline on AWS reducing the time to deploy trained models in production from experimentation.
- Collaborated with a team of 6 engineers to design, implement and maintain an ML Environment helping both data scientists and engineers in their experimentation and development work.
- Integrated automated testing for deployed pipelines and increased test coverage to 70% for existing codebase from 15%.
- Conducted interviews with other team managers and stakeholders to gather project requirements.
- Mentored interns to successful completion of their project and assisted team members with onboarding and other tasks.

SAIL (Software Analytics & Intelligence Lab) | [sail.cs.queensu.ca](#)

Kingston, ON, Canada

GRADUATE RESEARCH ASSISTANT

Sep. 2018 - Sep. 2019

- Authored two empirical research journal papers on large scale decentralized and distributed software systems.
- Built & maintained large scale crawlers written in python for mining software usage data.

TEACHING ASSISTANT

Sep. 2018 - Dec. 2018

- Mentored 6 groups of 36 students in their Software/Game Architecture course project in CISC 322/326.
- Evaluated and graded presentations and quizzes of 147 students in the Software/Game Architecture course (CISC 322/326).

Quintiq, a Dassault Systèmes company | [3ds.com/products/delmia/quintiq](#)

Kuala Lumpur, Malaysia

SOFTWARE ENGINEERING INTERN, SQC

Jun. 2017 - Mar. 2018

- Learned proprietary language QUILL in two weeks and implemented a supply chain simulation of a paper mill to monitor its KPIs in real time.
- Built a distributed and parallel testing framework for iOS and Android mobile devices reducing testing runtime by more than 80% based on the open-source Selenium and Appium automation library.

Dept. of Computer Science, IIUM | [bit.ly/2FY5sia](#)

Gombak, Kuala Lumpur, Malaysia

UNDERGRADUATE RESEARCH ASSISTANT

Jan. 2016 - Apr. 2017

- Collaborated on 5 research paper exploring Machine Learning and Cloud Computing.
- Implemented simulations and built models in C++, Python and Java as per specifications of the research work.

TEACHING ASSISTANT

Jan. 2014 - Apr. 2017

- Conducted tutorial classes, designed & graded lab works and projects and mentored project groups.
- Courses: Computer Archi. & Assembly, Data Structure, Principles of AI, Web Programming, Calculus & Linear Algebra and C++ Programming.

Honors & Awards

2017	Honorable Mention, (Team WF_please) , ACM-ICPC Asia Regional Mahidol University	Nakhon Pathom, Thailand
2017	1st Place (Team Zeroth) , Unicode Programming Competition Monash University	Kuala Lumpur, Malaysia
2016	2nd Place (Team WilderCodes) , ACM-ICPC Malaysia National IIUM	Gombak, Malaysia
2016	1st Place (Team MasterMinds) , Open Programming Competition Universiti Sains Islam	Nilai, Malaysia
2015	Honorable Mention (Team MasterMinds) , ACM-ICPC Asia Regional National University Singapore	NUS, Singapore
2015	3rd Place (Team IIUM A) [Race Video - bit.ly/2NFaqXO] , Intelligent Car Racing Freescale Cup	Johor Baru, Malaysia
2014	Honorable Mention (Team Void) , ACM-ICPC Asia Regional IIUM	Gombak, Malaysia
2014	4th Place (Team Void) , ACM-ICPC Malaysia National Universiti Teknologi PETRONAS	Seri Iskandar, Malaysia
2012	Honorable Mention (Team Origin) , ACM-ICPC Regional Daffodil University	Dhaka, Bangladesh

Technical Skills

Programming Languages C/C++, Java, Python, JavaScript, Dart, Bash, SQL, NoSQL etc.

Frameworks & Libraries Flutter, AWS-CDK, OpenCV, TensorFlow, Scikit-Learn, Selenium, Flask, Android, NodeJS, jQuery, ReactJS, Laravel etc.

Cloud Services GitHub, AWS, Firebase, GCP, etc.

Projects

QIMP (Quick Index of Medical Products & Problems) | Google Play Store - <https://rb.gy/xhodf>

Apr. 2023 - Present

- Designed and developed a cross platform app from scratch using Flutter with Firebase as the backend.
- Migrated an existing database from MySQL to real time document based database Firestore.
- Integrated dynamic links with google analytics to track user interaction with app content and custom ads.

TOOLS: FLUTTER, FIREBASE, GOOGLE CLOUD, DART, NODEJS

Serving Captions for Images in Near Real-Time on Android

2017

- Designed and developed a system to provide automated image captions for pictures taken with android mobile devices in near real-time.
- Built an image to text generation model based on Google's Inception-V3 network and trained on Microsoft's COCO dataset.
- Built an Android App to fetch captions for pictures from a trained image to text TensorFlow model set in an Ubuntu system at Digital Ocean through Firbase communicating with an Nginx server via a Nodejs script.

TOOLS: FIREBASE, DIGITALOCEAN, UBUNTU, NGINX, NODEJS, PYTHON, JAVA, TENSORFLOW, ANDROID

Faulty Medicine Strip Detection in Conveyor Belt

2015

- Designed and developed a system to capture, process, and filter out individual medicine strip from the video stream of a running conveyor belt.
- Built a simple ANN classifier using native python to classify faulty packaging of individual pills in a medicine strip.
- Built a tKinter based GUI interface for monitoring and reporting detection of faulty packaging of specific pills in a medicine strip.

TOOLS: ARDUINO, C/C++, PYTHON, OPENCV, TKINTER

CNC Machine Controller Program

2014

- Developed from scratch a system that parses and executes G-code instructions to control the positioning of the nib of a pen/drill.
- Built a tKinter based GUI interface for writing G-code instructions and for controlling the CNC machine.

TOOLS: ARDUINO, C, PYTHON, TKINTER

Education

Queen's University | queensu.ca

Kingston, ON, Canada

M.Sc. IN SCHOOL OF COMPUTING (RESEARCH)

Sep. 2018 - Exp. Sep. 2019

- CGPA: 4.06/4.3
- Thesis: An Empirical study of the Ethereum Blockchain
- Courses: Software Re-engineering, Data Mining, Software Repository Mining, Deep Learning and Research Methods

IIUM (International Islamic University Malaysia) | iiu.edu.my

Gombak, Kuala Lumpur, Malaysia

B.Sc. IN DEPARTMENT OF COMPUTER SCIENCE

Sep. 2013 - Apr. 2018

- Major GPA: 3.92/4.0
- Academic Excellence Scholarship, Dean's List (Six Semesters)
- Selected Courses: Software Engineering, Algorithm Analysis & Design, Machine Learning, Natural Language Processing and Cryptography

Publications

First Author

- Zarir, A. A., Oliva, G. A., Jiang, Z. M., & Hassan, A. E. (2021). **Developing cost-effective blockchain-powered applications: A case study of the gas usage of smart contract transactions in the ethereum blockchain platform.** *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 30(3), 1-38.

Second & Third Author

- Amri, A. A., Zarir, A. A., & Ismail A. R. (2018). **Comparative Performance of Deep Learning and Machine Learning Algorithms on Imbalanced Handwritten Data.** *International Journal of Advanced Computer Science and Applications*, Vol. 9. No. 2.
- Diallo, L., Hashim, A. H. A., Olanrewaju, R. F., Islam, S., & Zarir, A. A. (2016). **Two Objectives Big Data task Scheduling using Swarm Intelligence in Cloud Computing.** *Indian Journal of Science and Technology*, 9(28).

Extracurricular Activity

CodeKnights (Online Programming Contest Platform)

Kuala Lumpur, Malaysia

FOUNDING MEMBER

2016 - 2017

- Organized programming contests curated for Malaysian undergraduate students and trained them for competitive programming.
- Designed and implemented problem sets for contests using Polygon system by Codeforces.

CommunityAction (Student-run Volunteer Organization in Bangladesh) | www.ca-bd.org

Bangladesh

LOGISTICS EXECUTIVE

2011 - 2013

- Gained experiance in planning and executing critical public events specially in conditions with scarce resources.
- Collaborated with CSR division of multiple companies and managed a diverse range of charity projects.

Others

References Available upon request