ALI BOZORGZAD

@ bozorgzad.ai@gmail.com | 🔗 bozorgzadai.github.io | Stackoverflow | 💼 Linkedin | GitHub | 📍 Iran | 📞 +98 913 648 2921

SKILLS

- **Programming Languages:** Python, Kotlin, Java, C, C++, PHP, SQL, Assembly, Matlab, Dart, R, Go
- **Web Development:** JavaScript, TypeScript, React, Chakra, Bootstrap, Material UI, jQuery, RESTful API Design
- **Cloud Computing & DevOps:** Docker, CI/CD
- **Data Science & Machine Learning:** PyTorch, TensorFlow, Scikit-learn, Keras, Pandas, NumPy, Matplotlib, Seaborn
- **Mobile Development:** Android Development (Kotlin/Java), Jetpack Compose, Push Notifications (FCM)
- **Testing & Quality Assurance:** Unit Testing, Integration Testing
- **Other:** Git, OOP, Unity 2D, Linux

EXPERIENCE

Computer Network Lab Instructor   **Isfahan University of Technology**   *Isfahan, Iran*   Feb 2023 - Jun 2025
- Guided over 80 students in building real-world network scenarios using **Cisco** physical routers and switches.
- Designed lab instructions and exams that enhanced networking concept understanding, leading to a 15% score improvement.

Backend & Android Engineer   **Hamgam Azmoon Company**   *Isfahan, Iran*   Oct 2017 - Sep 2019
- Engineered a user-specific notification system triggered by login/logout events, resulting in a 4x increase in user retention.
- Optimized animations and resource handling to cut UI thread load and boost responsiveness by 2x.
- Restructured API contracts through collaboration with backend teams, reducing redundant calls by 30% and boosting app efficiency.
- Refactored 10k+ lines of legacy code using modern **design patterns**, doubling maintainability and readability across core modules.
- Developed a custom progress bar, improving upload transparency and reducing perceived wait time by up to 50%.
- Implemented a smart comment sorting algorithm based on engagement metrics, which boosted comment replies by 4x.
- Engineered bi-directional (LTR/RTL) layout support, enabling seamless Eng-Per language switching and ensuring UI consistency.
- Integrated voice-based search functionality, adopted by 15% of users, enhancing accessibility and search speed.
- Deployed **Google Sign-In**, adopted by 70% of new users, streamlining authentication and accelerating onboarding.
- Customized UI components following **Material Design** principles for a consistent and intuitive user interface across all app modules.
- Built modular components for cross-app reuse, improving code consistency and development efficiency by 30%.
- Optimized list rendering, reducing load time by 0.5 seconds and improving engagement as measured by daily active users.

Laptop & Computer Repairing   **Azin Computer Repair Center**   *Isfahan, Iran*   May 2013 – Jan 2014
- Diagnosed and repaired hardware/software issues, boosting performance and achieving 95% customer satisfaction.
- Installed and configured operating systems and drivers, restoring device functionality and reducing downtime by 30%.

PROJECTS

- **TEDxIUT.com:** Volunteered as a **ReactJS/TS** web designer at TEDxIUT, creating a bilingual site for 20k+ visitors **(May 2025)**.
- **RapidRemit:** Developed a **Python** Telegram bot to automate exam registration, reservations, and hotel bookings, reducing manual work by 4x while using **MySQL** for efficient data handling **(Mar 2025)**.
- **Autonomous Car:** Developed an autonomous car simulation using the Udacity Simulator, implementing computer vision and deep learning techniques to enable lane detection and real-time steering control **(Aug 2023)**.
- **Angle of Spray:** Developed a real-time image processing application using **Python** and **Tkinter** to detect and measure the spray angle through classical computer vision techniques such as edge detection, Hough transform, and geometric analysis **(Aug 2022)**.
- **Educational eBook:** *Learning Android Development with Java*, Developed a 100+ page beginner-friendly guide covering Android SDK, Java, UI components, and app lifecycle, shared with students to support hands-on learning in mobile development **(Sep 2017)**.

EDUCATION

M.Sc. in Artificial Intelligence & Robotics   **Isfahan University of Technology**   *Isfahan, Iran*   Sep 2021 - Sep 2024
Fully Funded (Merit), **GPA:** 18.05/20
- **Thesis:** Smart Swapping Approach Based on Neural Network Models Similarity for Enhancing **Federated Learning**

B.Sc. in Software Engineering   **Shamsipour Technical College**   *Tehran, Iran*   Jan 2016 - Sep 2017
Fully Funded (Merit), **GPA:** 18.21/20
- **Awarded first rank** in the graduating cohort for academic excellence
- **Project:** Developed a full-stack Android app for students to explore, rate, and review universities, featuring dual-language support for accessibility. Integrated with a **RESTful** backend for seamless data synchronization **(Android, PHP, MySQL, Full-Stack Development)**.

A.Sc. in Software Engineering   **Mohajer Technical College**   *Isfahan, Iran*   Jan 2014 - Jan 2016
Fully Funded (Merit), **GPA:** 17.19/20
- **Awarded first rank** in the graduating cohort for academic excellence
- **Project:** Built a full-stack restaurant ordering website enabling customers to browse the menu, place orders, and make secure online payments. Developed the backend using MVC architecture for clean and maintainable code **(Full-Stack, MVC, jQuery, MySQL)**.

HONORS & AWARDS

- **Bronze Award:** 3rd place in Pest & Plant Disease Identification in Vision AI Competition at Shahin Shahr 3rd AI Event **(Feb 2025)**.
- Awarded financial recognition for **ranking first** in the department at the end of each academic term **(2014 - 2017)**.
- **Gold Award:** First place at Championships Programming And Web, C++ Coding Algorithm at Ragheb Isfahani Institute, **(Apr 2015)**.

RESEARCH

MOD-CLIP: One-Stage Multi-Label Object Detection via Distilling CLIP and Label Correlation Modeling

Pattern Recognition and Computing Research Laboratory

- Under supervision of Dr. Abdolreza Mirzaei
- Proposes an approach for one-stage multi-label object detection in videos by combining CLIP distillation with a graph neural network-based label correlation learning framework to improve detection accuracy and generalization to unseen scenarios.

Smart Swapping Approach Based on Neural Network Models Similarity for Enhancing Federated Learning

Master of Science Thesis

- Under supervision of Dr. Amir Khorsandi
- Federated learning faces challenges due to data heterogeneity, which can hinder model convergence. This paper introduces an intelligent model-swapping method between clients based on similarity, improving convergence while maintaining user privacy, especially in large-user scenarios.

TEACHING ASSISTANT

- **Graduate:** Deep Learning, Machine Learning, Data Mining, Swarm Intelligence
- **Undergraduate:** Computational Intelligence, Advanced Programming Lab, Digital System Design I Lab, Data Structure, Assembly

ACHIEVEMENTS

- Reached the finals of the Shamsipour University Table Tennis Championship and was invited to join the university's official table tennis team **(Nov 2016)**.
- Received Advanced English Course Certification from Pooyesh Language School, Isfahan, Iran **(Oct 2014)**.
- Bronze Medalist in Provincial Football Championship | Team Member, Sepahan City FC **(Aug 2003)**.

VOLUNTEERING

- Serving as a web designer and on-site support member for **TEDxIUT**, contributing to the event's digital presence **(May 2025)**.
- Organized a campus Web Programming workshop with 40+ attendees **(Jan 2017)**.

CERTIFICATES

- Completed certification in "Trustworthiness in Deep Learning", focusing on model reliability, fairness, and interpretability **(Aug 2024)**.

INTERESTS

- **Intellectual interests:** Science communication, Philosophy of AI
- **Technical interests:** AR/VR, Open-source software
- **Personal passions:** Traveling, Table tennis, Chess