



# Albara AH Ramli

PO BOX 72742, Davis, CA 95617

+1(530)-220-3068 | albara@ramli.net | linkedin.com/in/albararamli | github.com/albararamli | albara.ramli.net | Google Scholar (400+ citations)

## Skills & Technologies

- **Programming Languages:** Java, Python, C, C++, C#, PHP, SQL, JavaScript, Swift, VB, Assembly
- **Web Development:** HTML, CSS, Bootstrap, Tailwind, React, Next.js, Node.js, Express.js, Flask, Spring Boot
- **Databases:** MySQL, PostgreSQL, MongoDB, Oracle.
- **DevOps & Cloud:** AWS (EC2, Lambda, S3), GCP, Azure, CI/CD, Git, Linux, Docker, Kubernetes
- **AI & Machine Learning:** Scikit-learn, PyTorch, TensorFlow, Keras, Pandas, NumPy, Deep Learning, NLP, LLMs
- **Networking & Security:** Assurance Models (Bell-LaPadula, Biba), Secure Systems, Internet Registrars, DNS Logs

## Work Experience

|   |   |                     |
|---|---|---------------------|
| <b>Postdoctoral Scholar</b>   | University of California, Davis Health – Department of Physical Medicine & Rehabilitation | Sep 2023 - Present  |
| <ul style="list-style-type: none"><li>• Designing and optimizing machine learning models for healthcare applications, enhancing diagnostic accuracy and patient care.</li><li>• Developing AI-driven personalized treatment plans for conditions such as DMD, ALS, and Stroke.</li></ul>  |   |                     |
| <b>Researcher</b>   | University of California, Davis – Department of Computer Science                          | Aug 2020 - Jun 2023 |
| <ul style="list-style-type: none"><li>• Applied classical and deep learning techniques in IoT, human activity recognition, and healthcare systems.</li><li>• Led the development of Walk4Me, an AI-driven system improving healthcare diagnostics and patient mobility assessments.</li><li>• Created deep learning models translating eye blinks into language for ALS patients.</li></ul> |   |                     |
| <b>Teaching Assistant</b>   | University of California, Davis – Department of Computer Science                          | Jan 2016 - Jun 2023 |
| <ul style="list-style-type: none"><li>• Mentored 53 teams in ECS193AB senior design course, guiding them through software development projects.</li><li>• Assisted in interactive grading for 635 students and evaluated 520 client proposals.</li></ul>  |   |                     |
| <b>Software Developer (Intern)</b>  | Symantec, Mountain View, CA – CSS Cyber Insurance   | Jun 2017 - Sep 2017 |
| <ul style="list-style-type: none"><li>• Built a real-time large-scale data gathering and analysis system.</li><li>• Modeled cross-layer network outages using Internet registrar repositories (IANA, DNS logs).</li><li>• Developed a real-time network monitoring platform for anomaly detection and cyber risk assessment.</li></ul>  |   |                     |

## Selected Projects

### Healthcare & AI Applications

- **Walk4Me:** Developed an automated telehealth mobility assessment system for early diagnosis and disease monitoring.
- **BWCNN – Blink to Word:** Designed a deep learning model translating eye blinks into speech, aiding ALS patients.
- **DMD Gait Analysis:** Built ML/DL models detecting Duchenne Muscular Dystrophy in children.
- **Stroke Identification with Wearable Sensors:** Created real-time stroke detection using multi-sensor integration.

### Networking & Security

- **Privacy Data Protection in Wireless Environments:** Identified actively transmitting devices via data-driven techniques.
- **Network Security & Policy Protection:** Verified security in shared networks using Bell-LaPadula and Biba models.

### AI & Reinforcement Learning

- **Adaptive Streaming & Congestion Control:** Designed reinforcement learning models optimizing video streaming and network performance.
- **Neural Adaptive Video Streaming (Pensieve):** Implemented RL-based adaptive bitrate streaming system.

## Education

- **Doctor of Philosophy (Ph.D.) in Computer Science** – University of California, Davis
- **Master of Science (M.S.) in Computer Science** – University of California, Davis
- **Bachelor of Science (B.Sc.) in Computer Engineering** – University of Tripoli

## Certifications & Mentoring

- **Mentored multiple teams** in AI, web development, and mobile applications across BioPortal, iCare, and COVID-19 research projects.
- **Certifications:** CITI Biomedical Research, Red Hat System Administration (I, II, III), Cisco CCNA, Alcatel-Lucent IP Networks.