

Muhammad Babar

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WORK EXPERIENCE

- Tech Lead (Remote)** – Obvio, Santa Clara

March 2023 – Present

 - Working as Tech Lead for Obvio, a Silicon Valley startup developing solar-powered AI traffic cameras capable of interpreting traffic patterns, violations, and unsafe driving behavior to reduce traffic accidents by leveraging advanced Computer Vision technology.
 - Generating realistic 3D road representations from de-wrapped overhead views, helping in determining traffic changes and abruptions.
- Software Tech Lead (Remote)** – Cloudtek, Islamabad

Dec 2021 – Aug 2023

 - Supervise a team of developers to build high-end complex web applications for US-based clients, mostly built using Python (Django, FastAPI), Laravel, and React.js.
 - Responsible for providing technical guidance regarding the issues encountered during development and deployment, to ensure timely delivery of scalable and sustainable code.
- Software Engineer** – IBM Perth, Australia

June 2020 – Dec 2022

 - Worked as a Full Stack developer using Python, JavaScript, and C++ to develop Web Interfaces and Backends of complex business solutions.
 - Pioneered multiple components of IBM's Watson.AI along with research teams, and participated in conducting research experiments based on human interaction with AI and machine learning systems.
 - Worked on enabling remote integration of the product's APIs as restful services.
- Software Developer** – Safarifone (Private) Limited, Islamabad

June 2017 – July 2018

 - Primarily responsible for developing web-based applications using Django Rest Framework and React.js.
 - Collaborated with other software developers, business analysts, and software architects to plan, design, develop, test, and maintain web-based and desktop-based business websites solutions.

EDUCATION

- Masters in Computer Science** – Edith Cowan University, Australia

Fall 2018 – Fall 2020

 - Coursework includes Machine Learning, Computer Vision, Medical Imaging Processing, Software Development, Design and Analysis of Algorithms, and Advanced Operating Systems.
- Bachelors in Computer Science** – Comsats University, Islamabad

Fall 2013 – Fall 2017

 - Graduated in the top 5% of the class.

KEY PROJECTS

- Deep Brain Tumor Segmentation | Research Project | 2020**

 - Performed semantic segmentation of brain tumor sub-regions, from multi-modal 3D MRI data provided in BraTS 2020 training dataset, using an encoder-decoder based neural network architecture containing Resnet blocks, and achieved an efficient model with a near to state-of-the-art accuracy of 82%.
- Brain Tumor Radio-genomic Classification | Machine Learning Course Project | 2019**

 - Developed an ensembled EfficientNed3D using multi-modal mpMRI scans to predict the presence of MGMT promoter methylation.

TECHNICAL SKILLS

- Languages**

Python, JavaScript, PHP, HTML, CSS, SQL/ORMs
- Tools**

Linux/Unix, VsCode, Anaconda, Git, Jira, AWS, Google Cloud
- Frameworks**

Django, FastAPI, Laravel, React.js, Pytorch, TensorFlow, OpenCV
- Interests**

Computer Vision, Software Development, Machine Learning, Algorithms, Problems Solving