ABRAR AHMED

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EDUCATION

MS	Masters in Computer Science *Universität Rostock, Rostock, Germany*	2019 – 2021
BS	Bachelors in Computer Science *Bahria University, Karachi, Pakistan*	2014 – 2018
MPP	Microsoft Professional Program – Front End Development *Microsoft – EdX*	2017 - 2018
DAFM	Diploma in Advertising & Film Making *ARENA Multimedia*	2016 - 2017

WORK EXPERIENCE

Master Thesis, *Fraunhofer IGD*　　　　　　　　　　　　　　　　　　　Feb 2021 – Jul 2021
- Topic: Bezier line object detection

Research Assistant @ Fraunhofer IGD　　　　　　　　　　　　　　　　Feb 2020 – Feb 2021
- Modelling feature visualization techniques for bat species recognition.
- Built the interface for the TensorRT inference engine from scratch using Vue.js.
- Built the test server REST APIs from scratch using Node JS (Express API).

Research Assistant, *Max Planck Institute - DEMOGR*　　　　　　　　　Jul 2020 – Mar 2021
- Data collection (web scraping) for multiple projects totaling 10,000+ searches..

Werkstudent Software Engineer, *HHLA – HPC*　　　　　　　　　　　Sep 2019 – Nov 2019
- Developed pre-processing libraries for large unstructured data directly shipped from the terminal.
- Analysis of million data records, developed ML models and predicted the dwell times
  to increase the target of increasing container capacity in HHLA CTB.

React Native Developer, *CryptoZilla.io*　　　　　　　　　　　　　　Feb 2018 – Feb 2019
- Developed a centralized and joint API system for the mobile application.
- Researched and developed tools to formulate data acquisition from more than 190
  cryptocurrency exchanges.
- Devised various complex but optimized algorithms for computation and logic.

Front End Engineer, *MedB Diagnostics*　　　　　　　　　　　　　　May 2016 – Aug 2018
- Implemented various E-commerce modules and features including Shipping, payment,
  front and back office modules.
- Developed modern UI from scratch and optimized landing pages for mobile and search engines.
- Planned workflows, scenario analysis and code review of several in-house projects.

Co-Founder, *Axisport Remote Lab*　　　　　　　　　　　　　　　　Jul 2014 – Mar 2019
- Served 200+ clients personally with a variety of design and development services.
- Build next-generation web and mobile applications with a focus on the client (front-end) side.
- Oversaw client meetings, remote team hiring and development.

THE BIG 3 PROJECTS

Real Time Hand Detection in a Therapeutic Research Scenario utilizing Transfer learning
- Data coll., research and creating ML models to solve the problem of detecting hands on multiple directed scenario videos.

Real Time Object Detection & Prediction using Machine Learning
- Build the next generation RTS rare coin detector utilizing ML features to detect, train and optimize scanner algorithms.

Cryptocurrency Trading Mobile Application (React Native)
- Develop all-in-one crypto management tool supporting 4 crypto wallets, 190 exchanges and tens of other features.

TECHNICAL SKILLS & KNOWLEDGE

Machine Learning, Data Analysis & Computer Vision Frameworks

Deep learning, Neural networks, Computer Vision, C++, OpenCV, Python, Scikit-Learn, TensorFlow, Keras, Pandas, NumPy, SQL, Seaborn, Matplotlib, Jupyter Notebooks, Clarifai, MS Office, MS Excel, Google Analytics

Web / Mobile Application Frameworks

HTML5, CSS3, BEM, LESS and SASS, Javascript ES5/6, React, Vue.js, Angular JS, Node.js, React Native, Android, Bootstrap, JSON, XML, SQL, jQuery, Jenkins, Progressive Web Applications, Automated Testing, Rest APIs, SOAP, Selenium, Mocha, Cross Browser Testing, Compatibility and Accessibility, Performance Optimization, Git, Linux

Cloud / Backend

MySQL, NoSQL, GraphQL, MongoDB, AWS, Google Cloud Engine, Firebase

Others

Adobe Suite (3 years exp): Adobe Photoshop, Adobe Illustrator, Adobe XD, CorelDraw, Premiere Pro, InDesign, After Affects, UI design, Advertisement design, Branding, Video editing, Storyboarding, User experience, SEO, Content writing (3 years) etc.

PUBLICATIONS

- [Research Report: Situation Aware Assistance](#), private/unlisted, May 2019
- [Research Report: Augmented Reality in Altered Gravity](#), private/unlisted, April 2019