Ali Unwala

Email: aliunwaladev@gmail.com

Please see website for easier to click links
www.aliunwala.com

EDUCATION

The University of Texas at Austin: Master of Science
Electrical and Computer Engineering, Research Focus: Robotics and Artificial Intelligence, GPA 3.8

The University of Texas at Austin: Bachelor of Science
Electrical and Computer Engineering, GPA 3.67

WORK EXPERIENCE

IBM Design: Senior Software Engineer 2020 - 2023

- Collaborated with design and accessibility experts to contribute to a suite of web tools providing guidance to ~300k IBM employees on making products accessible to people with disabilities
- **Technology**: React, Javascript, CSS, HTML, JSX, VSCode, Typescript, Node.js, Docker, Gatsby, and CouchDB
- **Related Projects (see below)**: ibm.com/able, IBM Equal Access Accessibility Checker

IBM Research: Senior Software Engineer 2018 - 2020

- Designed and developed an event driven architecture to check the accessibility on web pages
- **Technology**: Javascript, CSS, HTML, VSCode, and Node.js

IBM Watson: Cognitive Robotics Technical Lead 2015 - 2018

- Led a team focused on finding value for IBM at the crossroads of cognitive computing and robotics and grew this team from 2 people to 20 people all working toward building cognitive AI embodiments
- Consulted and implemented robotics and machine learning prototypes to create value in over 10 Fortune 500 companies
- **Technology**: REST, Python, Matlab, Vim, Unix/Linux, CouchDB, ROS, PCL, OpenCV, Watson AI APIs, NAO Robot, Pepper Robot
- **Related Projects (see below)**: Robotic Concierge - IBM Watson x Hilton, IBM Project Intu, IBM Chef Watson Robot

University of Texas at Austin: Graduate Teaching Assistant 2014 - 2014

- Conducted lectures for CS 378 Autonomous Intelligent Robotics and taught students the Robot Operating System (ROS) on a segbot platform
- **Technology**: Python, MATLAB, Vim, Unix/Linux, Robotics Operating System, Point Cloud Library, Open Computer Vision (OpenCV), Segbot Robot

Intel: Graduate Technical Intern 2011 - 2014

- Verified mobile processors (Atom, Celeron and Pentium) before they were sent for fabrication (pre-silicon)
- **Technology**: Java, C++, Assembly, C, Vim, Unix, TCL, Verilog, Perl, VHDL

PROJECTS

ibm.com/able: A site for IBMers building accessible products within the company

- Implemented over 90% of the front end (in 2022) with React & Node deployed with docker containers
- This project was featured in Forbes, InfoQ, betanews, linux.com, and ZDNET.

IBM Equal Access Accessibility Checker: A web extension that allows users to automatically check for accessibility issues on any websites they own

- Planned and implemented dynamically drawn visualizations that highlight accessibility bugs on a webpage.
- This project was featured in VentureBeat and CSUN.

Robotic Concierge - IBM Watson x Hilton: A robotic concierge to help Hilton customers navigate the hotel and the surrounding area using natural language.

- Consulted and built a robotic concierge using Watson APIs, natural language processing, and speech to text.
- This project was featured in Fox News, The Verge, Ars Technica, Fortune, USA Today, Time and additional publications.

IBM Project Intu: API for accessing IBM Watson services from devices that had proprietary interfaces (such as robotics platforms)

- Developed a reverse proxy, API, and security framework to pass connections to IBM Watson's cloud services
- This project was featured in ZDNET, The Stack, Silicon Angle, and PR News Wire.

IBM Chef Watson Robot: An application that allows the robot to act as an active kitchen assistant that will explore ingredients with a user and then create a dynamically generated recipe for them to cook

- Collaborated with the Chef Watson team to bring Chef Watson to the NAO robotics platform
- This project was featured in The Guardian, Washington Post, The New Yorker, and bon appetit.

AWARDS

- Eagle Scout - Boy Scouts of America
- 1st Place, UT Senior Design Competition
- 1st place, UT ECE 445L Design Competition
- University Honors - University of Texas at Austin