Hamza Zahid Butt

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PROFESSIONAL SUMMARY

Experienced Software Engineer with over 7+ years in the software industry, specializing in data extraction, web QA automation, and end-to-end software development lifecycle (SDLC). Adept in TypeScript, JavaScript, Python, SQL, and Java, with hands-on expertise in Docker, CI/CD pipelines, and cloud platforms like AWS. Proven track record of automating complex data workflows, including PDF parsing and large-scale data ingestion, to improve processing efficiency and prediction accuracy. Familiar with applying Machine Learning techniques for intelligent data analysis and system optimization. A strong advocate of clean code, quality-first development, and technical leadership, consistently delivering scalable solutions in fast-paced, cross-functional environments.

TECHNICAL SKILLS

Languages and Frameworks: JavaScript, TypeScript, Python, Java, Spring Boot, Node.js, React.js, HTML5, CSS3, RESTful APIs, GraphQL

Cloud and DevOps: AWS (EC2, Lambda, S3), Docker, Kubernetes, CI/CD Pipelines, GitHub Actions

Testing and Automation: Playwright, Puppeteer, Cypress, WebdriverIO, Protractor, Selenium, Mocha, Chai, Allure Reports, TestProject.io, Postman

Data and Analysis: Pandas, Data Science, Data Analysis, Excel, PDF Parsing, Automated Data Processing, Web Scraping, Import.io, Workbench

Databases: PostgreSQL, MySQL, SQL

Monitoring and Project Management: Jira, Trello, Monday.com, Zendesk

Roles and Expertise: Software Engineer, Data Analyst, SQA Engineer (SQAE), SDLC Implementation, API Testing, UAT, Network Request Handling (GET/POST)

PROFESSIONAL EXPERIENCE

Arbisoft (Hybrid / Remote)
Senior Software Engineer

 $\mathbf{Aug}\ \mathbf{2018} - \mathbf{Jul}\ \mathbf{2025}$

Lahore, Pakistan

• Develop and maintain large-scale web scraping systems for the Zuub project using TypeScript, Puppeteer, and Playwright.

- Automate data extraction and processing workflows, including complex PDF parsing using Python.
- Implement test automation using WebDriverIO, Cypress, Selenium, Protractor, and unit testing frameworks.
- Collaborate with cross-functional teams in Agile environments, using tools like Jira, Trello, and Zendesk.
- Technologies: TypeScript, JavaScript, Python, Node.js, React.js, REST APIs, SQL, GCP, Git, Excel, Google Sheets.

Arbisoft (Remote)

Jan 2024 – Aug 2024

Software Engineer - Zuub Project

Lahore, Pakistan

- \bullet Maintained web scraping functionality using TypeScript with Puppeteer for Zuub.
- Wrote unit tests to validate data extraction and ensure pipeline reliability.

Arbisoft (Hybrid)

Jun 2022 – Feb 2024

Software Engineer - Kayak Project

Lahore, Pakistan

- Worked with TypeScript, Node. is, and automation frameworks such as Selenium, Protractor, WebDriverIO, and Cypress.
- Tested complex UI components and APIs, contributed to QA automation efforts.

Arbisoft

Jan 2021 - Jul 2022

Software Engineering Team Lead - Import.io Project

Lahore, Pakistan

- Led a team responsible for data extraction, validation, and quality checks using Python and REST APIs.
- Oversaw implementation of automation strategies and dashboards for performance monitoring.

Arbisoft

Jul 2018 – Jan 2021

Software Engineer - Import.io Project

Lahore, Pakistan

- Contributed to scraping and automation solutions using Node.js, JavaScript, and Python.
- Performed data quality verification and integration with REST APIs.

HashiCorp (Internship)

Feb 2018 - May 2018

Lahore, Pakistan

Software Engineer Intern

- Assisted in frontend development using HTML, CSS, and Laravel.
- Collaborated on UI components and internal web tools.

TCAW Global (Internship)

Sep 2017 - Dec 2017

Lahore, Pakistan

Web Developer Intern

- Developed static and dynamic websites using HTML, CSS, JavaScript, Bootstrap, and WordPress.
- Practiced responsive design and collaborated with the design team.

PROJECTS

Zuub Web Scraping (Arbisoft) | TypeScript, Puppeteer, Playwright, Python

- Designed and implemented scalable scraping pipelines using TypeScript with Puppeteer and Playwright.
- Automated PDF data parsing workflows using Python, improving accuracy and speed of data collection.
- Led integration with REST APIs and streamlined data delivery pipelines for structured ingestion.

Kayak (Arbisoft) | TypeScript, WebdriverIO, Protractor, Playwright, Mocha, GitLab, Bamboo

- Automated mobile and tablet web view tests using Playwright in Mocha with TypeScript, reducing manual QA by 60%.
- Maintained over 5000 regression, 3000 sanity, 1000 smoke, and 500 production-level test cases.
- Used WebdriverIO, Protractor, Cucumber, and Selenium to build scalable automation suites.
- Managed version control through GitLab and Bitbucket, integrated CI/CD with Atlassian Bamboo.
- Mentored QA team and collaborated with developers and product managers to ensure test coverage and daily release updates.

Import.io (Arbisoft) | Node.js, Python, REST APIs, Google Sheets, Jira, Zendesk, Trello

- Developed web scraping and data quality solutions using Node.js, JavaScript, and Python.
- Performed automated data validation through RESTful APIs and Google Sheets integrations.
- Delivered over 15 successful client projects including BAT, Salsify, Cotiviti, GetYourGuide, and more.
- Utilized Jira, Zendesk, and Trello for agile task tracking and client communications.

Easy Rozgar – Customer Service System (HashiCorp) | Android Studio, Visual Studio, SQL Express

- Built a customer service app to streamline request management using Android Studio and Visual Studio.
- Implemented SQL Express for local database support and enhanced data reliability.

Kids Care Management System (TCAW Global) | HTML, CSS, PHP, Bootstrap, Wordpress

- Developed an online child care management platform for working parents using HTML, CSS, PHP, and Bootstrap.
- Ensured mobile-friendly, responsive layout and user-friendly design for better usability.

EDUCATION

Technische Universität Ilmenau

Apr 2025 – Present

Ilmenau, Germany

M.Sc. Research in Computer & Systems Engineering

Sep 2014 - Sep 2018

Lahore Garrison University
Bachelor of Science in Computer Science (BSCS)

Lahore, Pakistan

CERTIFICATIONS

Automate Development Tasks Using GitHub Actions (Microsoft, Dec 2023)

Skills: Automation, Git

Build Continuous Integration (CI) Workflows Using GitHub Actions (Microsoft, Dec 2023)

Skills: Automation, Git

Crash Course on Python (Google, Apr 2023)

Skills: Python, OOP, Problem Solving, Software Quality, Communication