

Dilip Agheda

Software Engineer

I am a technology professional who is a life-long learner, analytical and willing to adapt to different situations with positive attitude and my goal is to give my 100% to an organization where I can apply my technology skills to help them achieve their goal.

I have been involved in hands-on programming since 2001. More recently, I have been implementing enterprise solutions using React, JavaScript, NodeJS and AWS.

Github	https://github.com/dilipagheda
Portfolio	https://dilipagheda.com/
Linkedin	https://www.linkedin.com/in/dilipagheda/
Stackoverflow	https://stackoverflow.com/users/5680541/dilip-agheda
Phone	0401 291 718
Email	Dilip_agheda@yahoo.com

Recent Achievements

- I recently completed 3 years and 2 months of contract as a Software Engineer at Origin Energy having worked on React, TypeScript, NodeJS, JavaScript and AWS.
- I have delivered a digital solution named as “MyDay” for Origin Energy over the period of 18 months which consisted of more than 20 high quality production releases. I built most of the functionality of this solution using React, JavaScript and AWS serverless.
- I also delivered features across “Well performance monitoring” and “Turn down” applications for Origin Energy. I used React, Redux, NodeJS, AWS serverless set of technologies, AWS Opensearch to build these features.
- I passed JSNAD and JSNSD certifications within JavaScript space offered by Linux Foundation by passing hands-on tests.
- I passed **AWS certified developer associate** certification and **Terraform certified associate** in cloud computing.
- I have completed following online coding boot camps. Please check out my github: <https://github.com/dilipagheda> where I have built more than **45 projects** using various tech. I also maintain my own website built with React and Redux with project portfolio. (<https://www.dilipagheda.com>)
 - Intermediate JavaScript Nanodegree – Udacity, July 2020 (Built 3 projects)
 - Frontend Developer Nanodegree, 2020 – Udacity, Nov 2020 (Built 5 projects)
 - AWS Cloud Developer Nanodegree – Udacity, Nov 2020 (Built 5 projects)
 - React developer Nanodegree - Udacity , Oct 2019 (Built 3 projects)
 - Frontend Web developer Nanodegree 2019 - Udacity , Feb 2019 (Built 5 projects)
 - Frontend Web development Techdegree - Teamtreehouse , Dec 2018 (Built 9 projects)
 - Fullstack JavaScript Tech degree - Teamtreehouse , March 2019 (Built 12 projects)
 - SQL Nanodegree – Udacity, 2023 (Build 5 projects)
 - Backend .NET Developer Bootcamp – Openclassrooms (In progress)

- Android developer Nanodegree - Term1 - Udacity, Oct 2018 (Built 3 projects)
- Front-End Web UI Frameworks and Tools: Bootstrap 4 - Coursera (Built a Bootstrap website)
- At CommBank (CFS), I have developed React components which got deployed in the Production web application and developed Batch Processor project to allow background file processing.
- At CommBank, I worked on a Rebatehub project and developed Automation framework for Web using Behaviour driven development (BDD) approach using SpecFlow, Selenium Webdriver, C#, SQL Server and RestSharp API library.
- I have passed following certifications.
 - Microsoft Specialist – Programming in C#
 - Microsoft Specialist – SQL Server
 - Microsoft Specialist – HTML, CSS & JavaScript
 - JSNAD - OpenJS Certified NodeJS Applications Developer
 - JSNSD – OpenJS Certified Services Developer
 - AWS Certified Applications Developer Associate
 - Hashicorp certified Terraform Associate

Skills

Front-end web development	<ul style="list-style-type: none"> • HTML, CSS, SASS, JavaScript, ES6, jQuery, TypeScript, Bootstrap • React & Redux, RxJS • Unit testing with Jest/Jasmine/Mocha/Chai
Back-end web development	<ul style="list-style-type: none"> • JavaScript/Node.js / Express / Fastify / Pug • Unit testing with NUnit/xUnit • SQL Server / MongoDB / Elasticsearch / Opensearch • C#/.NET & Core MVC/Web API
Cloud Development	<ul style="list-style-type: none"> • Serverless with API Gateway, Lambda and DynamoDB • Serverless Framework • Deploying static websites using S3 • Refactoring Monolith application into microservices • AWS Certified Developer Associate
Test Automation	Selenium, Postman/Newman, Specflow, BDD, Protractor, Cypress, Cucumber
Mobile Development	Android, iOS, Flutter & React Native <i>(Built few side projects as part of Udacity Nanodegrees and online courses)</i>

Work experience

Software Engineer

Origin Energy

Jan 2021 – Present

- Delivered a digital solution named as “MyDay” for Origin Energy over the period of 18 months which consisted of more than 20 high quality production releases. I built most of the functionality of this solution using React, JavaScript and AWS serverless.
- Enabled the delivery of more than 500 digital forms in a very short time through development of a form engine. Form engine was written in React and it provided the ability to render user input forms of any complexity through a dynamic configuration file.
- Built Offline first React - Frontend App for Myday platform that allows rapid provisioning of digital forms through a form engine & has offline and data syncing capabilities.
- Used PWA features of a web app comprehensively. These features were indexDB database, service worker, offline caching and data syncing
- Designed and developed a data syncing capability between offline first frontend web app and the AWS hosted backend.
- Designed and developed image gallery widget in the MyDay app which also allowed offline caching of assets.
- Implemented a functionality called dynamic sections. It allowed adding or removing arbitrary number of sections within a form at run-time.
- Designed and developed a complex digital form called HCC form which had nested forms. I.e., forms within forms. I devised a recursive algorithm which renders such a form with arbitrary nested child forms.
- Implemented data validation rules in a generic way across number of UI widgets that provided a system of plug-n-play to enable a certain set of rules.
- Provided production support for field issues and provided rectification within a reasonable timeframe.
- Refactored legacy code by employing JavaScript design patterns (strategy, builder, factory, service-repository etc) to make it maintainable and scalable while reducing bundle size and improving performance
- Delivered data analytics applications named as WPA and TurnDown using React, Node, AWS, Postgress, Sequelize framework, OpenSearch and DynamoDB.
- Built several Backend features using AWS Serverless by leveraging API Gateway, Cognito, DynamoDB, SQS Queues and Lambda functions.
- Solved a severe performance issue by implementing server-side pagination and leveraging OpenSearch in backend for filters.
- Customised 3rd party libraries such as ***mui datatable*** to implement server-side pagination and server-side filtering and search.
- Built a dynamic mini form engine to render use input forms based on a config file residing within a DynamoDB database. This feature enabled users to input data related to various setpoints used in oil and gas industry.
- Solved user pain-points by implementing a UI drawer to load forms into. This feature allowed them to have a form and rest of the app open side by side.
- Worked closely with BAs, Test engineers and Data scientists.

- Collaborated with the platform team to re-architect and implement syncing data functionality.
- Helped and mentored team members from all disciplines showing team spirit while also allowing myself to be mentored by tech leads.

Tech stack: React, Redux, RxJS, Sagas, SQS, IndexDB, service workers, TypeScript, JavaScript, PWA, Offline-First, AWS, Serverless, Lambda, Node.js, DynamoDB, Postgress, Opensearch.

Software Engineer

Commonwealth Bank

Dec 2019 – Dec 2020

- Contributed to the development of an application using HTML, C# & APIs that digitises paper based letters and sends it to clients via a portal, saving \$1M in mailing costs.
- Developed Automation testing framework using NodeJS to test restful APIs.
- Developed a Database Syncing Application using .Net Core, Hangfire, C# and SQL that syncs business data between legacy database and modern counterpart. Worked very closely with Development Lead to get this delivered.
- Developed React components along with unit tests (Jest), story book and automated tests (Cypress)
- Contributed to a Project called Digital Communications Channel (DCC) within Colonial First Estate (CFS) division of Commonwealth Bank.
- Contributed to CFS MonoRepo utilising Full stack web development approach across Frontend, React and .NET Core APIs
- Built Web pages using HTML and SAAS/CSS based on a Mock up provided by UX team.
- Developed automated test framework in Cypress , JavaScript and jQuery and implemented test scripts for testing UI in isolation while mocking APIs.
- Developed automated test framework in C#, Selenium for end to end test scripts that runs in a real test environment.
- Developed PACT contract testing for APIs by writing Consumer and Provider contracts using .NET Core, Entity Framework InMemory DB, Mocking with Moq and C#.

Software Engineer in Test (Web & APIs)

2006- 2018

Reserve Bank of Australia, Macquarie Bank, Qantas, Commonwealth Bank, Nasdaq & ACI Worldwide

I worked with number of companies in Sydney during this time to deliver test automation framework in a Software Engineer in Test capacity. I worked on number of technologies such as SQL, NodeJS, JavaScript, Cypress, Mocha, Chai etc which has made me a versatile & hands-on software engineer.

- Developed Behaviour driven development (BDD) based Selenium Web Automation framework from scratch and achieved 100% pass rate across entire automation suite.
- Worked with the whole project team to draft testing strategy for RBA's digital initiative and got it approved by key stakeholders.

- Developed Pivot Tables to Talley total numbers of migrated accounts and their data attributes such as balances.
- Developed complex SQL queries to run against each data migration run to help detect issues.
- Developed test harness tool in C# to parse and verify AS2805 messages. Conducted Functional and Certification Testing of VeriFone EFTPOS terminals and Distra Payment gateway (a.k.a. Switch)
- Setting up of end to end testing components such as Visa/MasterCard Simulator, checking connections with the switch and other testing subsystems of participating banks.

Software Engineer

Gemalto (Now, Thales), Baeurer Infotech Ltd.

2001 – 2004

- Developed Terminal Parameter Management System using Microsoft technologies at the time for Axalto Customers. This system enabled them to download parameters from remote system.
- Developed test tools and harnesses to test front-end clients.
- Developed SQL Server stored procedures and triggers to support front-end functionality
- Developed software modules for CRM applications and wrote back-end stored procedures, functions and triggers to support front-end functionality.
- Developed UI screens for desktop applications that work with the data provided by backend database.
- Worked closely with software architects and DBAs to ensure, new code fits and play well in existing codebase.

Education

- *B.Eng – Information Technology – Sardar Patel Univeristy, India 2001*
- *M.Eng – Telecommunication Engineering – RMIT University, Australia 2003*