# **Anant Upadhyay**

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# **Professional Summary:**

- Over a decade of experience in Software Engineering with expertise in building Full Stack Web Applications from ground up.
- Experience working remotely, collaborating and often **leading** multiple teams, both on client site and offshore, concurrently working on different projects.
- Extensive experience working with UX designers and Product Owners to build accessible, intutive and responsive UI for web applications.
- Sound Understanding of traditional software engineering paradigms and architectural patterns like Service Oriented, Event Driven, Peer to Peer and Microservices architectures.
- Highly skilled with SQL and NoSQL databases, with focus on high availability, redundancy, decentralization and reliability.
- Familiar with different software engineering methodologies like Agile Scrum, Kanban, Lean and Waterfall.
- Highly experienced with modern JavaScript frameworks and libraries such as React, Vue, Angular and Svelte.
- Extensive experience with Linux CLI, PowerShell, DevOps tools, CI/CD Pipelines, Serverless, and Cloud Providers like AWS, Google Cloud and Azure.
- Experience with Unit, Integration, Automation and End to End testing for web applications.
- Certified in building decentralized applications on Ethereum, and worked with other Blockchain platforms like HyperLedger, Corda, and EOS.
- Exposed to Project planning, Contract management, Performance and Risk indicators analysis.
- Strong analytical skills with ability to quickly understand client's business needs and translate them into technical specifications.
- Ability to quickly ramp up and start producing results on given any tool or technology.

### **Technical Skills:**

Scripting Languages	JavaScript, TypeScript, BASH
Web Technologies	HTML5, CSS, Angular, React, Redux, Vue, Svelte, MobX, Ruby on Rails, PWA
Web/Application Server	Nginx, Apache Tomcat, Express, Koa
Blockchain Technologies	Bitcoin Script, Ethereum Solidity, Solana, EOS
Design Tools	Figma, Axure, Invision, Sketch
Database Systems	MongoDB, Redis, PostgreSQL, RDS, CouchDB, GraphQL
Testing Tools	Jest, NightWatch, Cypress, Jasmine, Mocha, Chai, Selenium
Programming Languages	Java, Python, Go, Rust
Build/Packaging/CI	Cargo, Webpack, Grunt, Gulp, Rollup
Operating Systems	UNIX/Linux, Windows. Mac OSX, Android, iOS
Development Methodology	Agile Scrum, Kanban, Waterfall, Lean
Messaging	Kafka, MQTT, RabbitMQ
DevOps	Docker, Kubernetes, EC2, Lambda, OpenShift, Jenkins, Ansible
Domain Knowledge	Automobile, Finance, Retail, E-Commerce, Telecom
Miscellaneous	ELK, SEO, Google/Adobe Analytics, Git, JWT, OAuth2, Wordpress, NPM/Yarn, Web3JS, Splunk, SSO, Jira, SNS, SQS, REST

## **Education:**

Bachelor of Engineering in Information Technology
Rajiv Gandhi Technical University, India
Master of Science in Computer Science
University of Massachusetts, Boston MA

## **Professional Experience:**

Telus - Burnaby, BC Jun 19 - Till Date

**Role: Lead Developer** 

TELUS Corp. is a telecommunications company headquartered in Burnaby, BC, Canada. It is engaged in the business of providing communications products and services, which include data, Internet protocol, voice, entertainment and video. The company operates through its business through two segments: Wireline and Wireless. The Wireless segment includes digital personal communications services, equipment sales and wireless Internet services. The Wireline segment includes voice local, voice long distance, data and other telecommunications services excluding wireless.

Telus is retiring their legacy on premise infrastructure to make a move to cloud to consolidate their multiple wireless and wireline customer support applications into single a new web application to provide better support to their customers all while making customer support agent's jobs easier.

## Responsibilities:

- Leading an onshore team of 6 and an offshore team of 4 comprising of Jr./Sr. FullStack Developers, UX designer, QA engineers and a Scrum master.
- Bootstraping and maintaining a Full Stack Node-React Application, setting up Microservices architecture, creating stateless Oauth2 session management application.
- Setting up and maintaining CI/CD pipelines, messaging queues, Cloud providers like AWS, Logging and Reporting.
- Working with Product Owners, Scrum Masters, UX Designers and Development team to write specifications as user stories and plan sprints.
- Working with Project Managers for project planning, contract management, performance and risk indicators analysis.
- Working with several internal Telus teams to resolve dependencies, schedule deployments and manage expectations.
- Coordinating with the QA engineers to throughly test the performance, reliability, robustness and security of the application ecosystem while delivering highest possible code quality in the fastest possible time.
- Working with Business stakeholders to align technical teams with business requirements and manage expectations.
- Hands on pair programming with developers on the team to explain them the importance of good software design by being the person who most closely follows the principles and practices.

Environment: React, Redux, Express, Jest, Docker, Openshift, JWT, OAuth2, SNS, SQS, PostgreSQL

#### **Role: Sr. Software Developer**

Kohl's is an American department store retail chain, operated by Kohl's Corporation. With 1,158 locations, it is the largest department store chain in the United States. Kohl's technology teams constantly explore, design and develop new ways to make customers shopping experience effortless and unique. With an informed, strategic approach, Kohl's has embraced the power of technology and leveraged bold innovations to push the boundaries and revolutionize the way users shop online.

Kohl's is retiring their legacy applications to comply with applications that can move to Google Cloud. They are rewriting their assortment planning tool to make it cloud ready. They are moving 70% of their applications to the cloud and Kohls Planning Suite is one of the applications that needs to be rewritten to be cloud ready.

#### Responsibilities:

- Contributing in creation of Kohl's Planning Suite for internal buyers and planners.
- Using Angular 7 to create web applications for internal users based on Okta Single Sign-On.
- Worked with Agile teams to write user stories and plan sprints.
- Implemented formalized software design patterns like composite and visitor to improve code readability for coders and architects familiar with the patterns.
- Writing code using Test Driven Development (TDD) which is a programming practice that instructs developers to write new code only if an automated test has failed.
- Creating custom components, directives, pipes and dialogues to be reused for multiple applications.
- Using Jenkins for CD/CI and creating build and deploy pipelines using OpenShift container platform.
- Using MongoDB as Data Store, Spring Boot for REST APIs and MicroServices and Apache Kafka for real time low latency data feeds.

**Environment:** Angular 7, Jasmine, Spring Boot, Kafka, OpenShift, MongoDB, Visual Studio Code.

#### **Role: Front End Engineer**

CFA Institute is the largest association of investment professionals in the world. With more than 130,000 members working in 150 countries, CFA Institute leads the investment profession's thinking in the areas of ethics, capital markets integrity, and excellence of practice. The organization provides a program of continuing education through conferences, publications, and webcasts that enable members, CFA Institute candidates, and others to stay abreast of the changing and expanding Global Body of Investment Knowledge.

CFA has embarked on a Digital Core Transformation (DCT) Program to replace its core systems in legacy architecture (based on Siebel and SharePoint) with advanced digital platform & solutions, driven by a need to simplify processes, modernize technology and improve user experience, whilst containing costs.

## **Responsibilities:**

- Maintaining a custom responsive WordPress theme for CFA Institute's educational events.
- Transitioned CFA Institute's SharePoint enterprise web site, to HTML5.
- Worked with a self-organizing Agile SAFe team to write user stories and plan sprints.
- Worked on mobile-first responsive retrofit of CFA Institute's enterprise website with support for modern and not-so modern browsers.
- Develop custom code for Adobe Dynamic Tag Management to measure e-commerce and conversion in Adobe Analytics.
- Wrote unit tests in Jasmine, Mocha and Chai for jQuery and JavaScript testing.
- Restructured CFA Institute's front end code-base to support automated deployments, using SASS and Grunt for CSS compilation, linting, JS unit tests, and cache-busting, and to enable development by distributed teams.
- Introduced CFA Institute to progressive enhancement and spearheaded its adoption during a redesign and rewrite of CFA Program's registration process.

**Environment**: HTML5, WordPress, SASS/CSS3, jQuery, JavaScript, JQuery, ASP.NET, Visual Studio.

#### **Role: Front End Engineer**

This project involved building analytics and predictive software tool with back end service for major industries like construction, aviation, mining, rail, and more. When a locomotive pulling freight cars across the country sends a constant stream of data from its onboard sensors to Uptake, and the company collects that data and gives real time insights to the railroad and engineer–like how fast the train should go, whether it's consuming fuel efficiently, and which parts may be close to breaking. The tools built primarily with React are highly customizable so that they can be used across different verticals without much modifications.

#### **Responsibilities:**

- Built Rich Prototypes and Applications using HTML5, CSS, JavaScript, JQuery, AJAX, JSON, React and Bootstrap.
- Worked with a self-organizing Agile Scrum team to write user stories and plan sprints.
- Spearheaded multiple teams building different applications.
- Used JIRA to track user stories across the development cycle and Confluence for maintaining project documentation.
- Used Webstorm and Sublime Text as primary code editors and Git for version control.
- Wrote unit tests in Jasmine, Mocha and Chai for JavaScript testing.
- Created Jenkins jobs for Continuous Integration of the code.
- Used Grunt and Gulp for automating build and packaging process.
- Used Bower and Node Package Manager for dependency management.
- Troubleshoot and fix bugs across multiple tools as part of Production support.
- Used Marvel to query and monitor Elastic Search clusters.
- Set up Swagger framework for representing the RESTful API's to be consumed by the React based front end.
- Developed service functions to parse and handle JSON data returned from the server.
- Facilitated end-to-end testing using Selenium

**Environment:** HTML5, CSS/CSS3, React, Redux, JavaScript, JQuery, Bootstrap, Webstorm.

## **Role: Application Developer**

Involved with development of infotainment applications that are downloaded directly to in-vehicle infotainment systems for most GM brands such as GMC, Buick, Chevrolet and Cadillac. The project involved collecting valuable diagnostic data and dashboard applications from the vehicle and normalizing the data for Adobe Omniture tool. This required extensive training with Adobe Analytics Suite of tools and implementation of Adobe Analytics for in-vehicle apps using HTML5, JavaScript, jQuery and AngularJS.

#### **Responsibilities:**

- Used HTML5, AngularJS, jQuery and JavaScript to build a web app which would run using webkit on the Linux based vehicle dashboard.
- Trained as an Adobe Analytics Implementation Specialist.
- Researched web analytics such as Google Analytics, Chartbeat and Piwik for better implementation.
- Wrote unit tests in Jasmine, Mocha and Chai for Angular S and JavaScript testing.
- Created Jenkins jobs for Continuous Integration of the code.
- Used Grunt and Gulp for automating build and packaging process.
- Used Bower and NPM for dependency management.
- Managed and maintained Adobe/Omniture web analytics tool.
- Ensured consistent measurement of key metrics and enabled timely and accurate monitoring of performance.
- Conducted regular quality assurance audits to identify and troubleshoot tracking issues and inconsistencies within tools and reporting.
- Partnered with Business and Technology teams to develop and communicate requirements for this project and other project related initiatives.
- Wrote use case scenarios for QA testers used for analytics audits and web optimization testing.
- Used Git for version control.

**Environment:** HTML5, CSS/CSS3, Adobe Omniture, JavaScript, Angular JS, JQuery, Bootstrap.

## Role: Web / UI Developer

A series of studies in recent years have suggested that certain types of game training can improve a person's cognitive performance. One of the most famous websites to take advantage of this was Lumosity with more than 50 million subscribers in 180 countries. This project aims to create a similar brain training app and website which included small games that targeted specific areas of brain controlling memory, attention, problem solving, processing speed and flexibility of thinking. This system managed to create games for web browsers as well as mobile platforms such as Android and iOS. Both platforms had to seamlessly work with each other such that user statistics and login information transitioned from one platform to another instantly.

### **Responsibilities:**

- Used client-side scripting languages such as JavaScript and JQuery.
- Worked in a 5 layering structured team environment to develop, enhance & support.
- Developed securing the application using form-based authentication using HTML, JavaScript, JQuery and CSS.
- UI development with technologies like HTML 5, Angular JS and JQuery.
- Designed and Developed Web application using CSS pre-processors
- Developed GUI using JavaScript, HTML/HTML5, DOM, XHTML, AJAX, CSS3 and JQuery in ongoing projects.
- Create complex JIRA workflows including project workflows, screen schemes, permission scheme and notification schemes in JIRA.
- Designed CSS3 based web pages which were cross-browser and cross-device compatible.
- Implemented Presentation layer using CSS Framework, AngularJS, Wire-framing, HTML5.
- Developed designs in securing the application using form-based authentication using HTML, XHTML, JavaScript, JQuery and CSS.
- Used AngularJS framework for building web-apps and was highly efficient with PHP framework as well as using Restful services.
- Implemented XML parsing and JSON parsing for data handling on different mini embedded applications.
- Handled all aspects of the web application including maintaining, testing, debugging, deploying and printing.
- Provided a solid solution for business rules management through its built-in repository and useful tools using Ilog's JRules.

**Environment:** HTML5, CSS/CSS3, JavaScript, Angular JS, JQuery, AJAX, Bootstrap.

## Role: Web Developer/System Admin

This project was aimed towards developing an in-house Web Server/Department Website for the Department of Physics at the University of Massachusetts Boston. Working under strict guidelines from the department, the website had sections for faculty profiles, faculty research, student submissions and student profiles. The project required multitasking as a web developer and a system admin. Initial task was to configure, install and maintain standalone servers, VMware, and internet applications such as Apache, Postfix, PHP, MySQL, ISP Config on the server. Secondary task involved setting up Wordpress and Joomla on the server and starting the website development from scratch.

## **Responsibilities:**

- Linux system administration and web hosting with minimum downtime.
- Monitoring server security and creating backup and recovery policies.
- Used Wordpress and Joomla for building web-apps and was highly efficient with PHP framework as well as using Restful services.
- Handled all aspects of the web application including development, maintenance, testing, debugging and deploying.
- Developed and maintained MySQL database.
- Responsible for code optimization and testing of the website across different browsers.
- Troubleshoot and fix systems as part of Production support.
- Deployed the website on Apache Tomcat Server.
- Taken Up Functional and Technical documentation responsibilities.
- Worked through cross browser compatibility issues with layout and styles for all new CSS that was implemented.
- Tested cross browser functionality and fixed major layout bugs for supported browsers including IF6
- Used Atom IDE for designing, coding and developing application.
- Reviewed the requirements and Involved in database design for new requirements.

**Environment:** Wordpress, PHP, CSS/CSS3, Joomla, Ubuntu, MySQL.

Role: Sr. Front End Developer Project: Inventory Management

The core business is high-volume processing of electronic transactions. Based on expertise in designing, building and operating IT solutions for end-user applications, Atos Worldline provides Payment & Card Processing Services, Customer Relationship Management and eservices, which covers the full on-line payments value chain.

The system manipulates and monitors merchants and their hierarchy. This system manages merchants, their information, contacts, contracts, services and their subscriptions. This module is core module in the system of card processing. And all other modules use this system to store information using batch processes. Also, the data is exported to other systems using web services.

## **Responsibilities:**

- Proficient in analyzing system requirements, use cases and other documents to gain overall understanding of the applications.
- Design and developed multiple webpages for the Merchant and Contract providers where users can enter their related information.
- Implement core services (Merchant Management), (Contract management) program in which merchants are managed with their information and hierarchy their connections, subscribing rules.
- Responsible for data transformation, data validation, application development and support.
- Create interactive features using JavaScript and jQuery/JQuery UI, Bootstrap
- Wrote application level code to interact with the backend databases [QUERY, AJAX and JSON.
- Used angular.js for developing single page web applications.
- Applied JQuery scripts for basic animation and end user screen customization purposes.
- Used AJAX and JSON to make asynchronous calls to the project server to fetch data on the fly.
- Analyzed existing Interface code to understand business process and understand impact of the proposed changes.
- Preparation of Bug report & Bug Tracking using Bugzilla online software.
- Generated new and edited existing design with CSS to accommodate new changes in design and logic.

**Environment:** CSS, JSP, HTML4, JavaScript, Ajax, JQuery, JSON, Bootstrap

**Role: Front End Developer** 

Project: Robosoccer - A web-based game

**Description:** RoboSoccer is an action-packed fantasy casual soccer game fully playable in the web browser. RoboSoccer can be played by hundreds of simultaneous players, distributed across different instances of the in-game world all powered by glorious HTML and JavaScript. When a new game is instantiated, the browser opens up a WebSocket connection to one of several load-balanced game servers. Each server hosts multiple world instances and handles the player synchronization and game logic within all instances.

### Responsibilities:

- Involved with requirement gathering, analysis and understanding of core game requirements to develop the user interface for the web application.
- Worked with Waterfall methodology of SDLC Process based on MVC Design Pattern.
- Worked closely with Photoshop & 3DS Max designers to implement game elements and the screen layouts on the web pages.
- Used LocalStorage throughout the web application to save game progress.
- Used HTML, CSS, JavaScript, jQuery to develop user interactive screens for web-based applications
- Developed Web workers, allowing to initialize the world map without slowing down the homepage UI.
- Experience on working with different CSS based components such as CSS Background, CSS layouts, CSS Positioning, CSS Text, CSS Box style, CSS Tables, CSS Pseudo-class, and CSS Pseudo-elements. Used CSS Media Queries so that the game can resize itself and adapt to many devices.
- Used various IDE's such as Java Netbeans, Aptana, and Java Eclipse to develop test codes to check the functionality of the code.
- Used various test servers such as Apache Tomcat, WAMP to check the functionality of the test codes developed from various IDE's
- Developed cross browser compatible dynamic web pages using HTML, CSS and tested them in various browsers such as Internet Explorer, Google Chrome, and Mozilla Firefox.
- Used Firebug, Web Inspector and IE Development Toolbar to debug the code for errors and fixed the issues.

**Environment:** HTML, CSS, Java Script, JQuery, Java Netbeans, Aptana, Java Eclipse, Webstorm, Firebug, Web Inspector, Adobe Photoshop, Adobe Dreamweaver, Apache Tomcat.

Role: Jr. Front End Developer. Project: Supply Chain Management

This project enables the dealers to provide service warranty to the end customers. The end customers can buy the warranty from one dealer and can utilize the warranty service at any other dealer. IT system for this acts as the centralized system. It aids the IT systems of the dealers to generate the invoice to the end customers for service repairs. Also, it makes payments to the dealers for the service repairs. The dealer warranty system works in conjunction with the Billing and Invoice system.

#### Responsibilities:

- Used Struts as **MVC** framework for designing the complete Web tier.
- Developed different GUI screens **JSPs** using **HTML**, **DHTML** and **CSS** to design the Pages according to Client Experience Workbench Standards.
- Client-side validations were implemented using **JavaScript**.
- Implemented the mechanism of logging and debugging with **Log4j**.
- Version controls of the code and configuration files are maintained by CVS.
- Developed **PL/SQL** packages and triggers.
- Developed test cases for Unit testing and performed integration and system testing.
- Performed Use case design, object modeling using **UML**, like Transformation of the Use Cases into Class Diagrams, and Sequence Diagrams.
- Used **TILES** framework for building the site layout, template pages, extending templates and different implementation of pages.
- Developed Stored Procedure for reports and business needs for complicated business logic.
- Application used **AJAX** to reduce the bandwidth usage and provide better user-experience.
- Used Java Message Service (JMS) API to create, send, receive, and read messages between application components.

**Environment**: **JavaScript, CSS, XML,** HTML, CVS, DHTML, ANT, Log4J, JUnit, Rational Clear Case, PL/SQL and Oracle 9i.