

# Karn Vadaliya

Boston, MA | 609-836-4327 | [vadaliya.k@northeastern.edu](mailto:vadaliya.k@northeastern.edu) | <https://www.linkedin.com/in/karn-vadaliya/> | <https://github.com/KarnVadaliya>

## TECHNICAL SKILLS

|                               |   |
|-------------------------------|---|
| <b>Programming Languages:</b> | Java, C#, C++, JavaScript, HTML, CSS, SQL   |
| <b>Web Technologies:</b>      | React JS, Redux, Node JS, jQuery, JSON, AJAX, XML, Express JS, RESTful API, JavaEE, Spring MVC, Spring Boot, Hibernate, Elasticsearch |
| <b>Databases:</b>             | MySQL, PostgreSQL, MongoDB, Redis, SQL Server, JDBC   |
| <b>Tools:</b>                 | NetBeans, Eclipse IDE, Visual Studio, RabbitMQ, Kibana, CMake, Bash, MS office, Jira, Bitbucket, Git, Terraform                       |
| <b>Operating Systems:</b>     | Windows, Linux, MacOS   |
| <b>AWS Technologies:</b>      | EC2, S3, Lambda, RDS, Route53, API Gateway, SNS, SES, EBS, IAM, CloudWatch  |
| <b>Certifications:</b>        | AWS Certified Cloud Practitioner, AWS Certified Developer - Associate   |

## EDUCATION

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|--|------------------------|
| <b>Northeastern University</b>   Boston, MA  | Expected December 2021 |
| <i>Master of Science in Information Systems</i>  |                        |
| Relevant Courses: Application Engineering Development, Data Structures and Algorithms, Web Design and User Experience, Web Development, Network Structures and Cloud Computing, Big Data Applications and Indexing |                        |
| <b>Dhirubhai Ambani Institute of Information and Communication Technology</b>   Gandhinagar, India   | May 2019               |
| <i>Bachelor of Technology in Information and Communication Technology</i>  |                        |
| Relevant Courses: Software Engineering, Algorithms, Object-Oriented Programming, Database Design & Management Systems  |                        |

## EXPERIENCE

|  |                            |
|--|----------------------------|
| <b>Doble Engineering Company</b>   Marlborough, Massachusetts  |                            |
| <i>Software Engineer Co-op</i>   | January 2021 – August 2021 |
| <ul style="list-style-type: none"><li>Worked on resolving multithreading design issues in a <b>C++</b> driver and developed a diagnostic tool in <b>C#</b> using <b>.Net Framework</b> for testing various diagnostics scripts across different system simulators</li><li>Reduced cost by <b>90%</b> by implementing an alternative to an external licensed library used in the software</li><li>Contributed to fixing issues in a project release management tool developed in <b>C#</b> using <b>.Net Framework</b> for managing new software releases within the company</li><li>Implemented techniques for a project to export managed code in <b>C#</b> to be used as a standard native .dll file which can be accessed by unmanaged code in <b>C++</b> that helped in reducing the problem of cross-team collaboration</li><li>Designed and deployed in production a licensing application using <b>React JS</b> that is used by all clients</li></ul> |                            |
| <b>Dhirubhai Ambani Institute of Information and Communication Technology</b>   Gandhinagar, India   |                            |
| <i>Web Developer Intern</i>  | May 2018 - July 2018       |
| <ul style="list-style-type: none"><li>Developed a <b>full-stack</b> web application using <b>HTML, CSS, Bootstrap, JavaScript, jQuery</b>, and <b>Firestore</b>, which helps the customer to visualize different combinations of tiles and followed an <b>agile</b> development practice such as <b>Scrum</b></li></ul>  |                            |

## ACADEMIC PROJECTS

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|--|---------------------|
| <b>Big Data Indexing Web Application</b> (Spring Boot, JSON, Redis, Elastic Search, Rabbit MQ, Kibana)   | Jan 2021 - Apr 2021 |
| <ul style="list-style-type: none"><li>Developed a <b>Spring Boot RESTful</b> web application to store schema less structured <b>JSON</b> objects to <b>Redis</b> key-value store</li><li>Implemented caching mechanism for the <b>JSON</b> objects and validating the cache using ETag</li><li>Designed indexing of the JSON object to <b>Elastic Search</b> via <b>RabbitMQ</b> queue to run search queries on the indexed data</li></ul>   |                     |
| <b>Restaurant Reservation System</b> (Java, Spring)  | Nov 2020 - Dec 2020 |
| <ul style="list-style-type: none"><li>Designed and developed a reservation system using technologies <b>Java, Spring MVC</b> and <b>Hibernate</b> in NetBeans</li><li>Added functionalities such as search, manage, reserve and cancel a booking with right email notification</li></ul>   |                     |
| <b>Cloud Web Application</b> (NodeJS, CI/CD, AWS)  | Sep 2020 – Dec 2020 |
| <ul style="list-style-type: none"><li>Built a resilient cloud-based web application with backend in <b>NodeJS</b> by leveraging the use of <b>AWS</b> cloud services created using <b>Terraform</b> such as EC2, EBS, CloudWatch, S3, IAM, Route53 and RDS with <b>MySQL</b> for database</li><li>Added <b>Continuous Integration and Deployment</b> using GitHub Actions and <b>Shell Scripting</b> in AWS Code Deploy</li><li>Implemented load testing through <b>Apache JMeter</b> that triggers autoscaling, decoupling of <b>microservices</b> through <b>SNS</b>, notification to users on certain events through <b>Lambda</b> and <b>SES</b> and added <b>SSL certificate</b> for security</li></ul> |                     |
| <b>Expert Hiring Application</b> (ReactJS, Redux, NodeJS, MongoDB, Rest API)   | Mar 2020 – Apr 2020 |
| <ul style="list-style-type: none"><li>Developed a <b>MERN-stack</b> single page web application that allows user to hire professionals for various services like electricians, plumbers etc. and with add-on functionalities like google login and payment integration through PayPal</li><li>Worked on a single page application using <b>React JS</b> along with <b>Redux</b>, with <b>Node JS</b> in the middle tier and <b>MongoDB</b> for database management that communicate with backend via <b>RESTful API</b></li></ul>  |                     |