

Kethan Kumar Nasapu

Full Stack Developer

Always excited to learn the latest technologies and skills to design and develop resilient architectures and solutions for real-world problems with my passion and experience.

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EDUCATION

MASTER OF APPLIED COMPUTER SCIENCE Dalhousie University

09/2020 - 12/2021

4.17/4.3

Topics of interest

- Advanced Software Development
- Advanced Network Security
- Cloud Computing
- Serverless Applications

BACHELOR OF TECHNOLOGY CVR College of Engineering

06/2014 - 06/2018

80%

Stream

- Computer Science and Engineering

WORK EXPERIENCE

Full Stack Developer Intern Canada Revenue Agency

09/2021 - 09/2021

(4 months) Halifax, Canada

Revenue Service of the government of Canada.

Achievements/Tasks

- Developed custom components in Java and Angular.
- Web application deployments using Oracle WebLogic Server.
- **Stack:** Java | Angular | IBM DB2 Express | Jenkins | Jira | Git | JFrog.

Software Developer HCL Technologies Ltd.

06/2018 - 12/2020

(2.6 years) Hyderabad, India

Services giant operating in 49 countries with 150,000+ employees all over the world.

Developments

- Integration of multifactor authentication mechanisms like **OTP** by SMS, Mobile **PUSH** notification, **TOTP/HOTP**, and **FIDO U2F** for many client applications all over the world.
- Implementation of a Web Auth API using Web Sockets in **JavaScript** to provide multi-factor authentication with **CA Advanced Authentication**.
- Integration of **Advanced Authentication** mechanisms for Windows Servers used by more than **10,000 clients** machines.
- Developed a generic component to integrate the **Salesforce Developer** application with **CA PAM** in **Java**.
- **Stack:** Java | J2EE | JSP | HTML | CSS | JavaScript | REST API | SOAP | JSON | XML | Oracle WebLogic 12c | MySQL | Apache Tomcat & httpd | IIS | Linux | RHEL | Windows server (2012 & 2016) | Git | Maven | Docker | Virtual machines | Eclipse.

TECHNICAL SKILLS

Programming languages

Java | Python | JSP | JavaScript | Node JS

AWS Cloud

EC2 | IAM | Lambda | DynamoDB | API Gateway | S3 | Secrets Manager | ECS | ECR | VPC | SNS | KMS | SQS | RDS | Lex | Sagemaker | Comprehend | AWS CLI

Google Cloud

Compute Engine | Apigee | Firestore | Cloud Storage | Cloud SDK | Cloud SQL | Google Kubernetes Engine | Cloud Run | Cloud Functions | Firebase

Web Development

React JS | Angular | CSS | HTML | React Bootstrap | Material UI | REST | SOAP | JSON | XML

Databases

MongoDB | Oracle 12C/XE | Neo4j | MySQL

Enterprise software

CA PAM | CA Advanced Authentication | CA Single Sign-On (SSO)

Servers

Oracle WebLogic 12c | Apache Tomcat | IIS | Apache HTTP

Operating systems

Windows | Linux | RHEL | Windows servers (2012 & 2016)

Others

Git | Maven | Gradle | CICD | Docker | J2EE | Jenkins | JIRA | Active Directory Domain Services | Eclipse | IntelliJ | VM

GRADUATE PROJECTS

Dalhousie Hockey League (09/2020 - 11/2020)

- A command-line application in Java using advanced concepts like Design Patterns, SOLID principles, Test Driven Development, etc. that showcases a strong programming background in software development.
- **Worked on:** Design patterns, Test Driven Development, and SOLID principles on multiple features implementation.
- **Github:** <https://github.com/kethan-kumar/dhl>.

Web Application using AWS (03/2021 - 04/2021)

- Designed, developed, and deployed a secure flask web application using docker and AWS services like Lambda, DynamoDB, Secrets Manager, ECS, ECR, EC2, S3, API Gateway, SNS, and KMS.
- **Worked on:** Complete backend services implementation for the project | Architected the application design.
- **Github:** https://github.com/kethan-kumar/secure_authentication.

WORK EXPERIENCE

Software Developer Intern CA Technologies Inc.

12/2017 - 03/2018

(4 months) Hyderabad, India

Product development industry with vast mainframe and security implementation.

Developments

- Developed a login component that integrates into any web application.
- Implemented a secure multi-factor authentication mechanism.
- Stack:** Java | HTML | CSS | Bootstrap | CA API Gateway | CA Directory (LDAP)

CERTIFICATIONS

Enterprise Design Thinking (01/2022)

IBM

AWARDS

MACS Medal of Excellence (02/2021)

Dalhousie University (Faculty of Computer Science)

MACS Entrance Award (09/2020)

Dalhousie University (Graduate studies)

CAMPUS WORK

Teaching Assistant and Marker Dalhousie University

01/2021 - 09/2021

Dalhousie University

Courses

- Advanced Software Development** (Winter 2021 | Summer 2021 | Fall 2021)
- Data Management, Warehousing and Analytics** (Winter 2021 | Summer 2021 | Fall 2021)
- Serverless Data Processing** (Fall 2021)

VOLUNTEER EXPERIENCE

Continuing Education Representative (10/2020 - 09/2021)

Dalhousie University

- Dalhousie Student Union - [Senate Caucus](#)

WORK CLIENTS

UniCredit

Bell Canada

Lowe's

Tesco Bank

British Telecommunications

Truist/BB&T

Conduent

Accenture

Bank of Baroda

GRADUATE PROJECTS

Serverless Application using AWS and GCP

(05/2021 - 07/2021)

- Architected and implemented a Serverless web application using cloud services of AWS and GCP in a group project. The application mainly focuses on making use of multi-cloud architecture to implement different features using both AWS and GCP cloud services.
- Worked on:** Integration and deployment using Google Firebase Web hosting | User profile management using Google Firebase SDK.
- Github:** <https://github.com/kethan-kumar/serverless>.

MarkIT Application using MERN stack

(05/2021 - 07/2021)

- Designed and developed an entire web application along with a group.
- Worked on:** Implemented the application home screen and user management (Login, Registration, Forgot Password, OTP by email) along with REST APIs development and MongoDB integration.
- Heroku Link:** <https://dal-markit.herokuapp.com>.
- Github:** <https://github.com/kethan-kumar/mark-it-git>.

Database and DBMS (11/2020 - 12/2020)

- Developed a working database and its management system from scratch in **Python**.
- Worked on:** Regex for query processing, password camouflage by AES encryption mechanism.
- Github:** https://github.com/kethan-kumar/custom_database.

Distributed transactions (10/2020 - 10/2020)

- Developed a component that performs distributed transactions between two remote databases (used **MySQL** in local and **Google cloud**).
- Worked on:** Complete design and implementation.
- Github:** https://github.com/kethan-kumar/distributed_database.

Twitter data extraction (11/2020 - 11/2020)

- Implemented a component to extract data from Twitter search and stream APIs and store them in **MongoDB** for later use. Developed a MapReduce word count on the stored data using **Apache spark** cluster and data visualization using **Neo4j**.
- Worked on:** Complete design and implementation.
- Github:** https://github.com/kethan-kumar/twitter_data_extraction.

Research paper for UX Design (01/2021 - 03/2021)

- Performed a complete study on a collaborating tool, **'Microsoft Teams'** using different techniques like Cognitive walkthrough, Affinity diagrams, Low and High fidelity prototypes, Cost importance tables, etc. to understand the tool from the user's perspective and find out areas of improvement in terms of the user experience.
- Github:** <https://github.com/kethan-kumar/ux>.

UNDERGRADUATE PROJECTS

Pattern based authentication (02/2018 - 04/2018)

Details:

- A pattern is selected from a grid (matrix) of size chosen by the user at the time of registration and provided in the password field.
- The grid contains characters in each cell that are unique all over the grid and dynamically change each time the user logs in which makes it difficult to hack.

Smart Attendance (Android App) (01/2018 - 02/2018)

Details:

- Smart Attendance is an Android application developed to maintain the attendance of students.
- The application is mainly focused on saving time and enhancing the evaluation process by replacing manual hard work with smart work using an app.

INTERESTS

Cloud Services

Software Development

DevOps

Mobile Rooting

Anime

Music

Cricket

Chess

Table Tennis

TV Series