

# Avinash Karhana

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[avinashkarhana.codes](https://avinashkarhana.codes)

## TECHNICAL SKILLS

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Programming Languages: Python, JAVA, SQL, Node.js, React.js, EmberJs, PHP, Javascript, Typescript, C, C++

## CONCEPTS AND TOOL SKILLS

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AI, Selenium WebDriver, Linux, MySql, Postgres, Django, Ansible, Terraform, SAP CPI, Docker, GitHub Actions, AWS Codepipeline, IBM Cloud, Tekton

## EDUCATION

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**Master of Science Computer Science Artificial Intelligence Stream Co-op** Sep 2022 - Present  
University of Windsor, Windsor, Ontario, Canada

- Pursuing research-based master degree, with current GPA of 91.3%

**Bachelor of Technology in Computer Science and Engineering** Jul 2016 - Oct 2020  
Hemvati Nandan Bahuguna Garhwal University (A Central University), Srinagar, Uttarakhand, India

- Scored a CGPA of 7.58/10
- Graduated with the First Division

## EXPERIENCE

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**DevSecOps Intern** May 2023 – Present  
IBM, Toronto, Ontario, Canada

- Developed ansible playbooks for various security and operations workflows
- Created, migrated, and maintained Tekton Pipelines to orchestrate various operations workflows
- Used Openshift as the container orchestration system for automating software deployment, scaling, and management

**Graduate Assistant** Sep 2022 – April 2022  
University of Windsor, Windsor, Ontario, Canada

- Performed proctoring and grading duties consisting of grading assignments, labs, quizzes, mid-terms, and final exams. Also had office hours for doubts clearing regarding concepts like data structures etc.
- Performed stated duties for COMP-3150 (Database Management Systems) and COMP-1400 (Intro to Programming and Algorithms I)
- Performed lab instructor duties for COMP-1400 (Intro to Programming and Algorithms I)

**Software Engineer** May 2021 - Aug 2022  
Replicon Software Inc, Bangalore, Karnataka, India

- Handled full stack integration software development in the MarketPlace Integrations team
- Devised CI/CD Workflows (GitHub Actions and AWS Codepipeline) to streamline the software integration and deployment process
- Developed cloud-based application integrations for SAP, Atlassian and Salesforce using agile methodology

**Software Engineering Intern** Jul 2019 - Aug 2019  
Coracle Infotech Pvt Ltd, Ghaziabad, Uttar Pradesh, India

- Designed and coded a PHP based Licensing System for software solutions to facilitate software license
- Operated as the team lead and built an automation bot named "Mass Whatsapp Texting bot" using WebDriver
- Managed two subordinate interns on the "Mass Whatsapp Texting bot"

## PROJECTS

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### Py-HTTPS

Mar 2021 - Apr 2021

Own, Panipat, Haryana, India

#### Python

<https://pypi.org/project/py-https/>

- Built a simple yet feature-rich python HTTPS development server module

### iWAF (Intelligent web application firewall)

Jun 2020 - Oct 2020

Own, Panipat, Haryana, India

#### Socket Programming (Python), Machine learning (Keras)

<https://github.com/avinashkarhana/iWAF>

- Engineered an application layer firewall for web apps using a neural network model to detect SQL injection and XSS attacks

### Blockchain-based Digital Certificate Storage and Management

Sep 2019 - Oct 2019

Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand, India

#### Socket Programming (Python), Hashing

[https://github.com/avinashkarhana/Certificate\\_Data\\_on\\_personal\\_BlockChain](https://github.com/avinashkarhana/Certificate_Data_on_personal_BlockChain)

- Implemented blockchain to store digital certificates and transcripts for University's ERP system

### Dependency Fixer

Jan 2019 - Feb 2019

Own, Srinagar, Uttarakhand, India

#### Python

<https://pypi.org/project/dependency-fixer/>

- Created a pip based python module for in-script mass dependency installation

## CERTIFICATIONS

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Software Architecture: Patterns for Developers, LinkedIn

Feb 2023

Rest API (Intermediate) Certificate, HackerRank

Nov 2020

Problem Solving - Python (Intermediate) Certificate, HackerRank

Nov 2020

GIAC Python Coder (GPYC), TestDome

Jul 2019

Remote Sensing And Digital Image Analysis, Indian Institute of Remote Sensing (IIRS),  
Indian Space Research Organisation (ISRO)

Sep 2018

## PUBLICATIONS

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### Data Security Framework for Data-Centers

Jan 2019

International Journal of Computer Sciences and Engineering

<https://doi.org/10.26438/ijcse/v7i1.451456>

- Devised a new security framework for data centers to address the known flaws in the security policy of data centers by defining security policies including Data classification policy, Data Access rights policy, Remote Access policy, Data transfer policy, Data backup policy, etc.

## EXTRA-CURRICULAR ACTIVITIES

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- Founded University Computer Science Student Research Club (2018) with other 5 members
- Served as a volunteer and passed Certificate B in National Service Scheme (2017 to 2020)
- Constant contributor to the OpenSource community projects, including popular projects such as pip, iRedMail and iRedAdmin