# Avinash Karhana

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#### **TECHNICAL SKILLS**

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

#### **CONCEPTS AND TOOL SKILLS**

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

#### **EDUCATION**

## 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**

Graduate Assistant Sep 2022 - Present

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" leveraging Selenium WebDriver'
- Managed two subordinate interns on the "Mass Whatsapp Texting bot"

#### **TEST SCORES**

**IELTS:** 7.5 | **GRE:** 151 (Verbal Reasoning), 156 (Quantitative Reasoning)

#### **PROJECTS**

**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

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**

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**

#### **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**

- 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