

# KUSHASHWA RAVI SHRIMALI

International Institute of Information Technology Naya Raipur

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## Education

**International Institute of Information Technology, Naya Raipur (IIIT-NR)**

**2016 – 2020**

*B.Tech. : Computer Science and Engineering - 9.38 CGPA*

*Raipur, Chhattisgarh*

Awarded with Chairman's Gold Medal for Transformational Leadership

## Technical Skills

**Languages:** C++, Rust, Python, Go, Lua, Java, TypeScript, HTML, CSS

**Skills:** Backend, Linux, Filesystem, Database Design, System Design, Django, Compilers, Programming Languages, System Optimization, High-Performance Computing

## Work Experience

**Software Engineer - 2, Abnormal Security**

**December 2022 – Present**

*Backend Engineer*

*Bangalore, India*

- Led integrations for multiple SaaS Platforms into the current pipeline for Security Posture Management feature launched at RSA Conference.
- Led the project of supporting ingestion of more audit logs of different types and extracting required properties on scale.
- Contributed in reducing in-memory database storage and optimising database calls (Postgres).
- Designed and led migration testing of the data ingestion service end to end for all the customers of Abnormal.
- Tech Stack: Python, Golang, PostgreSQL, Kafka, Scheduling Algorithms, Django REST API

**Research Engineer, Lightning AI**

**Feb 2022 – November 2022**

*Lead: Lightning Flash; Maintainer: PyTorch Lightning, Lightning App*

*Remote*



- Lead for Lightning Flash library, major focus on fixing hardware compatibility, API design, better engineering, fixing major bugs, and helping lead major releases.
- Maintainer for PyTorch Lightning library, major focus includes API design, and GPU and bfloat16 performance compared to PyTorch.

**Software Developer (Open Source), Quansight**

**May 2021 – Feb 2022**

*Core contributor to PyTorch up-stream, specially Testing and Sparse Tensors teams*

*Remote*

- Core contributor to PyTorch core code base with the teams at Quansight and Meta (Facebook).   
[Link to the Pull Requests](#)
- Wrote adding a tensor generation utility for PyTorch to help users generate tensors of their choice of shape, device and type with one command.  [Documentation Link](#)

**Software Developer Intern, NVIDIA**

**January 2020 – April 2020**




*Team: PyTorch GPU Development Frameworks Team*

*Santa Clara, California*

- Contributed to introduce Type Promotion support for Unary Universal UFuncs in PyTorch for both CUDA and CPU devices.
- Improved test framework for universal unary functions in PyTorch and fixed CUDA level bugs for PyTorch functions.




## Projects

**Context Pilot (Server - Rust, Extension - TypeScript, Lua), Author**



- Binary to find top N (all for now) relevant files and authors for the given line of code/section of code/file.   
[Repository Link](#)
- Implemented an in-house DB to store results for any user call to boost performance (acts as a long-living cache).   
[VSCode Extension Link](#)  [NeoVim Plugin Link](#)

**LPython (Compiler and Programming Language), Contributor**

**July 2022**

-  [Added support for yield statements in the parser](#)
-  [Fixed support for "in" in for Expressions \(without breaking for statements\)](#)
-  [Fixed parsing for list comprehensions \(bison\)](#)

**OpenCV, Contributor**

-  [Fixed errors for no faces detected in facial landmark detection model.](#)
-  [Added BRISQUE implementation](#) (also included testing for all systems including 32-bit, 64-bit, and operating systems: Windows, MacOS).