

AMAN SHARMA

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 <https://algomaster99.github.io/>

 <https://github.com/algomaster99>

EDUCATION

KTH Royal Institute of Technology

 February 2023 – January 2028

 Stockholm, Sweden

- PhD student in Computer Science

Indian Institute of Technology, Roorkee

 July 2017 – September 2021

 Uttarakhand, India

- Bachelor of Technology

PUBLICATIONS

1. Causes and Canonicalization of Unreproducible Builds in Java, Aman Sharma, Benoit Baudry, Martin Monperrus In *IEEE Transactions on Software Engineering* 2025
2.  Maven-Hijack: Software Supply Chain Attack Exploiting Packaging Order, Frank Reyes, Federico Bono, Aman Sharma, Benoit Baudry, Martin Monperrus In *ACM SCORED 2025*
3. Challenges of Producing Software Bill of Materials for Java, Musard Balliu, Benoit Baudry, Sofia Bobadilla, Mathias Ekstedt, Martin Monperrus, Javier Ron, Aman Sharma, Gabriel Skoglund, César Soto-Valero, Martin Wittlinger In *IEEE Security & Privacy* 2023

WORK EXPERIENCE

Google

 August 2025 - October 2025

 New York City, USA

- Worked as a student researcher.
- Contributed to OSS-Rebuild project, adding support for automatic rebuilds of Java packages.

KTH Royal Institute of Technology

 November 2021 - January 2023

 Stockholm, Sweden

- Worked as a research engineer in ASSERT Research Group.
- Contributed to Sorald which is an automatic program repair tool for SonarQube static analysis warnings.
- Built collector-sahab which augments the static diff with runtime information.

Google Summer of Code

 2 times: May-July 2020 and May-July 2019

 Remote

- Worked with Accord Project and Vega Project at University of Washington respectively.
- Added visualization sharing functionality in Vega Editor
- Created a MS Word add-in to import smart contracts into document.

AWARDS

ACM SCORED 2025 Distinguished Paper Award

SKILLS

JVM Bytecode Manipulation, Dependency Resolvers, Package Managers, Runtime Integrity & Dynamic Analysis, Ahead of Time techniques for Java, Static Analysis, Open Source Communication

TECHNICAL PROJECTS

maven-lockfile

- Lockfile for Maven with support for hermetic builds.
- Paper: <https://arxiv.org/abs/2510.00730>
- Tool: <https://github.com/chains-project/maven-lockfile>

sbom.exe

- Tool with a goal to provide runtime integrity for Java applications.
- Paper: <https://arxiv.org/abs/2407.00246>
- Tool: <https://github.com/chains-project/sbom.exe>

collector-sahab

- It augments the static line-based diff with runtime information about variable value changes in two executions of a Java program.
- Paper: <https://arxiv.org/abs/2212.11077v2>
- Tool: <https://github.com/ASSERT-KTH/collector-sahab/>

sorald

- It automatically repairs static analysis warnings reported by SonarQube.
- Paper: <https://arxiv.org/abs/2103.12033>
- Tool: <https://github.com/ASSERT-KTH/sorald/>

TALKS

- JFokus 2025 [slides]
- ICSE 2024 [slides]
- EclipseCon 2022 [video] [slides]
- SciPy India 2019 [video] [slides]
- More on <https://algomaster99.github.io/talks/>

REFERENCES

Martin Monperrus

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Benoit Baudry

Professor

Université de Montréal

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<https://softwarediversity.eu/>