Ashwani Kumar Kamal

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EDUCATION

Indian Institute of Technology Kharagpur   Kharagpur, West Bengal
Bachelor of Technology, Computer Science and Engineering — CGPA 8.82   *2020 - 2024*

Delhi Public School Aligarh   Aligarh, Uttar Pradesh
Passed CBSE AISSE (Class X) with 93.17% and CBSE AISSCE (Class XII) with 98%   *2020*

EXPERIENCE

Schlumberger   Jul 2024 – Present
Software Engineer | Go, Java, Spring Boot, Kubernetes, Google Cloud Platform   *Pune, India*
- Refactored core microservices to isolate customer **PII** data, improving compliance with internal privacy audits
- Migrated **1M** customer records to new identity schema, enabling email change workflow & reducing data coupling
- Designed and validated new identity-claim in authorization flows like ACF, CCG reducing latency by **12%**
- Decommissioned unused task services, cutting infra costs by **$630** per month and simplifying service topology

Piramal Retail Finance   May 2023 – Jul 2023
Software Engineer Intern | Java, Spring Boot, Temporal, Postgres   *Bengaluru, India*
- Designed architecture for generic scheduler allowing any service to schedule any function dynamically in workflow
- Developed microservice for orchestrating workflows and allowing other services to request a scheduled workflow
- Implemented a client for seamless integration of other services and their activity functions to scheduler architecture
- Added option to configure retry options, pass payload and timeouts for internal use of scheduler in organization

PROJECTS

PaPAd: Practical and Private Advertising | *Prof. Satrajit Ghosh, IIT KGP* | Thesis Project   Apr 2024
- Did a literature review of the current systems in targeted advertising and analyzed Google's **FLoC** & **Topics**
- Proposed two protocols using cryptographic primitives for protecting user data and interests against ad platforms
- Applied the protocol by making flask servers and a chrome extension for simulating browser behaviour
- Collected chrome histories of peers and curated a **time-series** based attack with the goal of **re-identification**

Goof | *Go, Nasm, Linux* | Self Project   Jan 2025 – Present
- Made a **Turing-complete**, statically typed programming language inspired by Forth for Linux x86_64 architecture
- Developed a compiler directly emitting assembly in Go, supporting lexical analysis, parsing and **type inference**
- Added support for user functions, Linux system calls, conditionals, loops, macros and basic memory manipulation
- Wrote example programs like **game of life**, **bubble sort** and recursive **factorial** to showcase language capability

COURSEWORK INFORMATION

Computer organization & Architecture | Operating Systems | Computer Networks | Machine Learning | Algorithms | Discrete Structures | Formal Language and Automata Theory | Software Engineering | Information Retrieval | Database Management Systems | Compilers | Probability & Statistics | Switching Circuits & Logic Design

TECHNICAL SKILLS

Languages & Libraries: Go, C, C++, Java, JavaScript, Python, Bash
Frameworks & tools: Spring Boot, Git/GitHub, Docker, Kubectl, ArgoCD, GKE

OPEN SOURCE CONTRIBUTIONS

Trivy | *Go* | Vulnerability scanner   May 2025 – Jun 2025
- Excluded development dependencies while scanning Gradle lockfile (commit) and updated docs (commit)
- Added support for scanning **Bun** workspaces through a parser (commit) and analyzer (commit)

Etcd | *Go, gRPC* | Consistent, distributed key-value store used by Kubernetes   Sept 2025 – Oct 2025
- Disabled authentication retry when JWT is set (commit)   and allow any client to fetch the Auth Status (commit)