

Ajay P Sakthikumar

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• <https://github.com/CodeWizrd001>

EDUCATION

B.Tech. Computer Science and Engineering

National Institute of Technology Calicut, Kerala, India

May 2022

8.16 CGPA

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Database Management Systems, Artificial Intelligence, Computer Security Lab, Number Theory & Cryptography, Machine Learning Lab, Computer Networks

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Bash, Shell scripting

Frameworks: Django, Flask, Sanic, Next.js, Angular, Flutter, Electron

Databases/Tools: PostgreSQL, MySQL, MongoDB, Qdrant, Git, GitHub, AWS DevOps

AI & LLMs: GPT APIs, RAG pipelines, Ollama, PyTorch, TensorFlow, Keras

Security Tools: Burp Suite, Metasploit, Wireshark, tcpdump, nmap, pfSense

Other: Docker, Kafka, WebSockets, Automation Testing (wdio, qmate)

PROFESSIONAL EXPERIENCE

FlyFin AI – Bangalore, India: *Fullstack Developer*

Nov 2025 - Aug 2026

- Worked on **end-to-end development** for **AutoTax**, FlyFin's AI tax preparation product, across the **Next.js** frontend, **Python/Django** backend, and **Electron** desktop app.
- Expanded support for additional **U.S. tax forms** and mappings.
- Developed integrations with **Lacerte, Drake, ProSeries, and CCH** tax software.

Traceable Software India (Acquired by Harness Inc.) – Bangalore, India: *Security Research Engineer*

May 2024 - Jul 2025

- Developed and deployed custom security testing tools
- Optimized tool workflows cutting API/microservice analysis time by ~50%. (2 days to 20hrs)
- Conducted penetration tests across services for 10+ enterprise clients like Walmart, Morgan Stanley, Disney;
- Integrated findings into product workflows, reducing recurring vulnerabilities in pre-release cycles.

SAP Labs India - Bangalore, India:

Developer Associate

May 2022 - May 2024

- Automated regression and workflow testing in SAP S4 CRM Service Management, decreasing manual QA effort by ~30%.
- Designed **GPT-driven prototypes** for enhancing S4 service workflows, enabling intelligent automation.
- Improved internal tooling and optimized CRM service reliability.

Intern

May 2021 - July 2021

- Automated testing using **qmate (wdio)**, reducing regression effort for CRM modules
- Improved API validation coverage by ~15% through new internal tools, ensuring smoother integration testing.

RELEVANT PROJECTS

The Echelon Engine - *Personal Project*

June 2025 - Present

- Built a modular **ABM framework in Python** with JSON-composable scenarios.
- Implemented reinforcement-learning-style reward loops, multi-agent interactions, and **simulation** → **narrative conversion**.
- Designed for extensibility into **Behaviour-driven decision making** and game-style simulations.
- The generic nature of the ABM makes it fit for medical, military, strategy and other niche use cases with agent counts upto 10k.

Juris - *Personal Project*

May 2025

- AI assistant for legal guidance (IPC) using **RAG** pipelines with **Ollama, Flask**, and **Qdrant**.
- Designed scalable embeddings storage and retrieval with semantic search.
- <https://github.com/Fabrum-Codex/Juris>

Metasploit wrapper framework for Mass Exploit Execution - *Course Project*

April 2022

- Created a framework using **metasploit** for mass execution of exploits in a network
- The tool allows scanning of **multiple systems** in a network (up to $255^4 = 4,228,250,625$ addresses; RAM-limited))
- The tool also supports execution of exploits in target system automatically and allows **shell connection** to compromised systems

Capture The Flag (IEEE NITC)

May 2020

- Conducted an entry level CTF and hosted on **CTFd** with ~60 participants.
- Challenges were made using multiple tools and were internally hosted
- Created **shell simulations** for challenges

eXpOS (Operating System) - *Course Project*

Jan 2020

- Developed an experimental operating system based on **C**
- Programmed OS functionalities including demand paging, kernel stacks, procedure calls, semaphores, disk access etc.

ACCOLADES

Patent Filed - Service Assistant using Chat GPT

May 2023

- Created an intelligent assistant using **python** and **GPT API** for **SAP Service Management** use cases.
 - <https://patents.justia.com/patent/20250104087>