

NAZ ZARREEN OISHIE

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Software Engineer with 4+ years of experience building production EDA software and AI-agent integrations using Python and C++. Experienced in algorithm development, performance optimization, and automation.

EXPERIENCE

Siemens EDA - Software Engineer · Saskatoon, Canada

May 2022 - Present

- Develop high-performance Electronic Design Automation (EDA) tools using Python and C++, focusing on parsing, simulation, and visualization of large-scale circuit design data.
- Resolved 300+ engineering issues across the product, delivering bug fixes, enhancements, and improvements to core algorithms and software architecture.
- Designed and implemented API systems and an API server for Solido Design Environment, enabling external programmatic access to product capabilities.
- Built Model Context Protocol (MCP) servers to expose product APIs to AI agent harnesses, enabling agent-driven interactions with EDA tools.
- Mentor newly hired developers and interns through onboarding, codebase walkthroughs, code reviews, and day-to-day engineering practices.

University of Saskatchewan - Graduate Research Assistant · Saskatoon, Canada

Sep 2019 - Feb 2022

- Developed a web-based workflow provenance visualization framework featuring customizable, interactive views using Vue.js and D3.js.
- Built a Visual Studio Code extension using TypeScript and Python, integrating machine learning models to identify bug-inducing commits in software repositories.
- Designed data collection and processing pipelines using Python, Scrapy, and REST APIs to scrape, clean, and analyze large-scale datasets for research.
- Applied machine learning and data analysis techniques to software repositories and research datasets, leveraging MySQL, Amazon EC2, and RDS; contributed to academic publications on source-code authorship identification.

SELECTED PROJECTS

Pitch Desk · Python, MCP, Gemini, YouTube Data API - Built a human-reviewed indie-game outreach agent using MCP tools and an agent loop to match games with YouTube creators and draft evidence-backed pitches.

Commit Checker · TypeScript, Python, scikit-learn - VS Code extension and CLI using machine learning algorithms to identify bug-inducing commits and support CI workflows.

Author Identification of Source Code · Deep Neural Networks, SVM, Random Forest, Stacking Ensemble - Research project focused on identifying individual authors in multi-author codebases using ensemble-based authorship attribution.

TECHNICAL SKILLS

Languages: Python · JavaScript · SQL · C++ · Java

Tools: Flask · Vue.js · REST APIs · PostgreSQL · MySQL · Git

AI/ML: Machine Learning · Deep Learning · Agentic AI · MCP · Harness Engineering

EDUCATION

University of Saskatchewan - M.Sc. Computer Science · 2022

Khulna University - B.Sc. Computer Science & Engineering · 2019

LEADERSHIP

Google Developer Groups (GDG) Saskatoon - Founder and Chapter Lead

Organized developer events and delivered technical talks on Python, AI, and software engineering.