Samar Kansal

📞 826-202-0059 ✉ samarkansal@vt.edu 🔗 linkedin/samar-kansal ⌂ github/samarkansal 🌐 samarkansal.tech

Education

Virginia Tech	Expected Dec 2024
Masters in Computer Science (GPA: 4.00)	*Blacksburg, Virginia*
BITS Pilani	July 2020
Bachelors in Electronics and Communication (GPA: 3.55)	*Hyderabad, India*

Technical Skills

Programming Languages: C/C++, Java, JavaScript, Kotlin, Python, SQL, TypeScript, PHP
Technologies & Frameworks: Node.js, Express.js, React.js, Angular, Vue.js, TensorFlow, jQuery, Bootstrap, PostgreSQL, MySQL, Selenium, Autogen, FastAPI, Streamlit, Kafka, Kubernetes, MongoDB
Coursework: AI Tools in Software Development, Software Engineering, Web App Dev, Mobile Dev, DSA, Operating Systems, Database Management, Object Oriented Programming, Network Programming, Social Media Analytics

Experience

Division of IT, Virginia Tech — Jan 2023 – Present
Graduate Assistant (Software Developer) — *Blacksburg, VA*
- Designed and developed a comprehensive loaning system for the institute using MySQL wrappers and JavaScript, significantly streamlining processes and enhancing user experience.
- Created an Angular UI for managing bulk requests, reducing clicks and administrative workload, and improving efficiency.
- Migrated institute-wide processes from Google Workspace to Microsoft Exchange, including creating an Azure app and leveraging shared calendar APIs to transition widgets from Google Calendar to Microsoft Calendar on the help portal.

ServiceNow — Hyderabad, India
Software Engineer-2 — *Feb 2022 – Dec 2022*
- Service Operation Workspace: Engineered a high-performance UI for an IT service management platform using JavaScript, React, GoJS, and GlideRecord for MySQL queries.
- Site Reliability Operations Application: Developed a full-stack app for SRE/DevOps, integrating ServiceNow scripting, a Seismic front-end, and GraphQL with MySQL for data management.

Software Engineer-1 — *Aug 2020 – Feb 2022*
- Notify: Developed a ServiceNow notification system using Java REST APIs for SMS/voice alerts, integrated with Zoom, Twilio, and Microsoft Teams, and WebRTC utilizing the Rhino JavaScript engine for server-side execution.
- Problem Migration Utility: Designed a JavaScript-powered application within ServiceNow to streamline upgrades to an enhanced Problem Management version for customers.

Software Developer Intern — *July 2019 – Dec 2019*
- Incident/Problem Management: Enhanced ITSM apps for 15,000+ organizations using ServiceNow scripting, jQuery, Vanilla JS, and GlideAjax. Focused on feature improvements and error tracking with GlideRecord and Client Scripts.
- Automation and Unit Test: Automated test cases for ITSM apps using Java Selenium to detect regressions.

AlphaICs — May 2019 – June 2019
Software Developer Intern — *Bangalore, India*
- Created custom operations (OPs) for TensorFlow with C++.
- Implemented parallel programming techniques for Molecular Dynamics using the OpenMP library.
- Simulated a camera module interface in C for efficient image collection from multiple cameras with reduced memory usage.

Projects

- **Attendify (Meeting scheduler and QR-based attendance management system)** Recorded Demo Link
  Description: Attendify is a web-based application that allows event organizers to schedule and manage meetings, while attendees use QR codes to check in and record their attendance. Deployed the application using Kubernetes for scalable and efficient management of containers.
  Technology: HTML, CSS, JavaScript, MongoDB, Express, Vue, Node, Pinia, Kubernetes.
- **CarCool: Your Vibe, Your Ride (Carpool Matching App)** Recorded Demo Link
  Description: Carpooling platform with a 'Vibe Score' using ML for user matching. Utilized Kafka for real-time notifications.
  Technology: React, MongoDB (including Spatial DB with geohash), Kafka, FastAPI, Python.
- **Ducky: Coding Assistant**
  Description: Crafted an advanced AI-driven coding assistant leveraging fine-tuned large language models with the AutoGen framework to ensure the generation of optimal code solutions.
  Technology: Open-source LLMs, Autogen, Python, Streamlit.
- **Video Streaming Application - MPTCP**
  Description: Developed a video streaming application using Multipath TCP (MPTCP) to serve multiple clients concurrently. Implemented a custom congestion control scheduler for efficient bandwidth utilization and seamless streaming.
  Technology: Python, OpenCV, TCP/IP, MPTCP, Socket Programming.