Jagroop Gill

Philadelphia, PA | jsg362@drexel.edu | 484-541-8804 | Personal Website | LinkedIn | GitHub

Education

Drexel University, BS in Software Engineering, minor in AI and Learning   Sep 2022 – Jun 2027
- GPA: 3.6/4.0

Experience

IoT Engineer, Battery Dynamics Lab – Philadelphia, PA   Sep 2025 – Current
- Developed a wireless IoT data collection system using micro-controllers and a Raspberry Pi to read sensor data and publish it to an MQTT broker [repository]
- Deployed a Dockerized monitoring stack (Telegraf, InfluxDB, Grafana) to ingest, store, and visualize real-time sensor data that is visible to devices on internal network [repository]
- Provide as-needed technical support for lab computing resources.

System Admin, Drexel Dept of Climate & Sustainability – Philadelphia, PA   Oct 2023 – Current
- Developed an end-of-life workflow for Apple iMacs, to boot a Linux environment from USB, harvest hardware data for resale, and apply specialized software to ensure secure, compliant data erasure
- Contributed to campus sustainability initiative events to promote reuse and reduce waste

Jr. Software Engineer I, WebstaurantStore – Lititz, PA (Remote)   Mar 2025 – Sep 2025
- Co-engineered the full-stack migration of a legacy C# scrum poker app to a Backstage plugin, rebuilding the frontend in React and TypeScript to serve 700+ users
- Architected a new distributed, event-driven backend using Socket.io and Redis while enhancing the overall application with new user-facing features and improved real-time collaboration
- Contributed to the broader Backstage project by resolving bugs and completing technical spikes in collaboration with the team

Student Researcher, Drexel Dept of CAEE – Philadelphia, PA   Oct 2024 – Mar 2025
- Supported AI-driven structural failure analysis by compiling and describing failure reports to train detection models; implemented algorithms, leveraging NumPy for efficient image array processing, to classify ultrasonic images and locate cracks with bounding boxes, contributing to published research

Web Developer Co-op, Drexel College of Medicine – Philadelphia, PA   Apr 2024 – Sep 2024
- Developed application features with C#, ASP.NET, and MS SQL, creating complex queries for interactive data grids that improved workflows and data integrity through database normalization and input validation
- Responsible for checking ticket inbox and resolving user issues, or escalating as needed in a timely manner

Projects

Home Server
- Built and administered an externally facing Ubuntu server on a re-purposed 2011 Apple MacBook Pro, configuring network port forwarding and user permissions to host a public Minecraft server.

Personal Website
- Developed and hosted a responsive personal portfolio website using React, optimizing for visual appeal and cross-device compatibility [link | repository]

Technologies

Languages: TypeScript, Java, C#, SQL, JavaScript, C, C++, Python, Bash

Technologies: Docker, React, Redis, .NET, Microsoft & Postgres SQL, Arduino, Visual Studio (Code), Linux/Unix, Git, Azure, Grafana