# Arijit Chakma

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## SKILLS

**Languages:** Python, Go/Golang, Javascript/Typescript, Java, C/C++, SQL, HTML/CSS

**Technologies**: AWS, React, Redux, Langchain, RAG, PostgreSQL, MongoDB, Git, Numpy, Pandas, MATLAB

**ML & CV Technologies:** Tensorflow, Sklearn, Mediapipe, OpenCV

## EXPERIENCE

**Drexel University**                                                                                        **Philadelphia, PA**

Undergraduate Research Assistant                                                          Sep 2024 - Present

- Developed **10+** ML classification models using scikit-learn in Python, analyzing intersection traffic patterns and achieving a **300%** improvement in prediction accuracy.
- Reviewed **15+** academic papers on sustainable transportation and intelligent traffic management, identifying critical strategies that guided the creation of fair resource allocation algorithms.

**Bristol Myers Squibb**                                                                                        **Princeton, NJ**

Software & Cloud Engineering Co-op                                                       Apr 2024 - Sep 2024

- Architected and implemented **5+ ETL** workflows using AWS Step Functions, streamlining data processing for **10,000+** employees and enhancing accuracy by **70%**.
- Engineered **15+** AWS Lambda functions with CloudFormation, synchronizing data between Active Directory/LDAP and AWS services, slashing manual efforts by **90%**.
- Spearheaded automation of LucidChart user delicensing using Puppeteer and AWS Lambda, efficiently managing **1250+** users and **450+** licenses.
- Crafted a React and TypeScript frontend for AWS DataZone user delicensing, integrating with AWS API Gateway to accelerate processing time by **80%**.

**Develop For Good**                                                                                        **Virtual**

Software Engineer                                                                              May 2024 - Aug 2024

- Engineered language-based event filtering features for art events using React and TypeScript, while enhancing login security through Firebase authentication with email/password validation
- Spearheaded migration of **2000+** lines of JavaScript to TypeScript and implemented Chakra UI components, resulting in a **40%** reduction in bugs and improved code maintainability

## PROJECTS

**PigeonPost | Link |** *React, Flask, Figma, OpenAI API, Google Cloud API, QDrent*                     **Nov 2024**

- Developed a classroom learning web application that captures lecture audio and enables real-time RAG queries and generates diverse study materials (slides, PDFs, podcasts, quizzes) post-lecture. It includes a gamification system with performance tracking and peer comparisons to enhance student engagement.

**DenEyes | Link |** *OpenCV, Mediapipe, RaspberryPi*                                                  **Sep 2024**

- Engineered a computer vision system using OpenCV and Mediapipe on Raspberry Pi to detect ADHD signs through attention tracking, implementing reinforcement learning and analysis reporting

**Scout | Link |** *React Native, Go, Android Studio, MongoDB, Google Maps API*                        **Apr 2024**

- Built an Android app for a campus security robot, integrating Google Maps API for real-time GPS tracking during emergency detection and response.

## AWARDS

**Drexel Global Scholarship:** 1 out of 13 international students awarded full ride in 2022.

**PennApps 2024 Winner:** Overall 1st out of 105 projects at University of Pennsylvania's annual hackathon.

**HopHacks 2024 Winner:** Overall 2nd out of 80 projects at John Hopkins University's annual hackathon.

**DragonHacks 2024 Winner:** Secured 1st in the Interactive and Multimedia track at Drexel's hackathon.

## EDUCATION

**Drexel University** | BS in Computer Science (**GPA: 3.80/4.00**)                          Expected Grad: **Jun 2027**

Relevant Courseworks: Software Archi & Design, System Archi, Intro to AI, Data Structures, Machine Learning