

ARIJIT CHAKMA

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SKILLS

- **Languages:** Python, JavaScript/TypeScript, Go, Java, C/C++, SQL, HTML/CSS, Bash
- **Web/App Development:** React, Redux, React Native, Expo, HTML/CSS, MaterialUI, Tailwind
- **Cloud and Databases:** AWS, Docker, MongoDB, Supabase, PostgreSQL, Pinecone
- **AI and Machine Learning:** TensorFlow, PyTorch, Scikit-Learn, Hugging Face Diffusers, LangChain

EXPERIENCE

Drexel University, College of Computing & Informatics

Philadelphia, PA

Artificial Intelligence Researcher (Advisor: Dr. Feng Liu)

Apr 2025 – Present

- Fine-tuned the Flux-dev1 and SDXL diffusion models using LoRA to enable step-by-step generation of scientific models.
- Prepared 20+ high-quality novel data sets to fine-tune and improve the diffusion models from YouTube videos.
- Reviewed 15+ research papers on in-context diffusion learning, progressive learning, and consistent generation techniques to guide model improvements.

Bristol Myers Squibb

Princeton, NJ

Cloud and Software Developer Co-op

Apr 2024 – Sep 2024

- Designed 5+ ETL workflows using AWS Step Functions, automating data processing for 10,000+ employees and improving accuracy by 70%.
- Automated LucidChart delicensing for 1,250+ users with Puppeteer and AWS Lambda, reducing manual overhead by 90%.
- Built a React frontend for AWS DataZone, integrated with AWS API Gateway, reducing data processing time by 80%.
- Developed Python scripts that pulled 5+ cross-account DynamoDB tables and loaded 1.3 TB into AWS Athena, saving analysts 8 hours per week.
- Integrated AWS Glue Crawlers to auto-detect schema changes on 15+ tables and trigger event-driven ETL jobs, eliminating manual intervention.

Develop For Good

Virtual

Software Engineer (Volunteer)

May 2024 – Aug 2024

- Implemented language-based event filtering for art events using React & TypeScript and enhanced login features with Firebase authentication.
- Migrated 2000+ lines from JavaScript to TypeScript, reducing runtime bugs by 40% and improving maintainability with Chakra UI integration.

PROJECTS

WoundWatch — React Native, Flask, Hugging Face, MongoDB, Open3D, Gemini

[Link](#)

- Developed an AI-powered app to reconstruct 3D wound models from 2D images using depth estimation and segmentation, supporting real-time clinical analysis and supporting remote healthcare for patients.

VentureAhead.AI — ReactJS, Flask, OpenAI API, SerpAPI

[Link](#)

- Built a multi-agent platform that automates business ideation, market research, competitor analysis, and outcome simulation, empowering entrepreneurs with actionable insights.

ACHIEVEMENTS

- **PennApps 2024 Winner:** Overall 1st Place (out of 105 projects) at University of Pennsylvania's premier hackathon.
- **HopHacks 2024 Winner:** Overall 2nd Place (out of 80 projects) at Johns Hopkins University's annual competition.
- **DragonHacks Winner:** Best Multimedia Track (2024) and Best Social Impact Award (2025) winner.
- **Drexel Global Scholar:** 1 of 13 international students awarded full-tuition for outstanding academic achievements.

EDUCATION

Drexel University — BS in Computer Science

Philadelphia, PA

GPA: 3.80/4.00, Specializing in AI/ML and Graphics/Vision

Expected Graduation: June 2027

Coursework: Data Structures & Algorithms, System Programming, Design Patterns, Machine & Deep Learning