ARNIT SINHA

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EDUCATION

Clarkson University Potsdam, NY

Bachelor of Science in Electrical and Software Engineering *Expected Graduation: May 2026*
- **Relevant Coursework**: Object Oriented Programming, Digital Design, Embedded Systems, UI/UX Design

University Of Technology Sydney Sydney, NSW

Fall 2024 - Study Exchange
- **Relevant Coursework**: Network Engineering, Database Programming, Robotics, Signals and System Processing

EXPERIENCE

CSpeed, LLC May 2024 – July 2024

Software Engineering Intern *Syracuse, NY*
- Developed an interactive frontend with **Angular and TypeScript** for real-time radar data visualization, resulting in improved user engagement by **20%** through the implementation of **Chart.js and OpenLayers**.
- Built a scalable backend with **Django, PostgreSQL, and RabbitMQ**, enhancing real-time data management efficiency by **40%**.
- Designed a travel router in **C#** by modifying the **vanilla OpenWRT binary**, integrating a **GPS and UVC Camera**, and using **ML.NET** for real-time image analysis and alerts, leading to a **35%** reduction in response time for alerts.

Cvrve Dec 2023 – May 2024

Software Engineering Intern *Manhattan, NY*
- Led architectural design discussions and implemented scalable solutions using the **Next.js** framework, which improved system scalability by **25%**.
- Collaborated with cross-functional teams to integrate **RESTful APIs**, enhancing application performance by **30%**.
- Developed and deployed dynamic, responsive web applications utilizing **Redux** for state management, resulting in a **20%** improvement in user experience.

PROJECTS

HeyHoo | *React, Tailwind CSS, Hugging Face Transformers, MongoDB, Python* | ***HooHacks 2024***
- Engineered an AI-powered vision assistant for visually impaired individuals using **React and Tailwind CSS**, enabling navigation through voice commands.
- Integrated **NLP with Hugging Face Transformers and Python** for interactive "HeyHoo" voice commands.
- Implemented object recognition algorithms in **Python**, using **MongoDB** for data storage to describe objects, scenes, and text.

Academ.ai | *Python, OpenAI, Langchain, Cloud SQL, PyQt6, Docker, JavaScript* | ***HackRPI X***
- Utilized **LLMs** to generate personalized learning schedules, integrating with Google Calendar for automatic event creation and sharing.
- Developed a web server version using **React & Tailwind CSS** with an intuitive interface for generating and managing learning schedules.
- Created a user-friendly GUI version, using **PyQt6** providing an executable for simplified usage.

TECHNICAL SKILLS

Languages and Web: C, C++, C#, Python, TypeScript, Vue.js, HTML5, CSS3, JavaScript, Bash
Tools and IDEs: Git, Linux, Visual Studio Code, JetBrains PyCharm
Database Tools: Cassandra, MongoDB, MySQL, SQLite, Redis, Elasticsearch
Cloud Platforms and DevOps: AWS (S3, DynamoDB, ECS), Google Cloud (GCE, BigQuery), Docker, Kubernetes

AWARDS

Commendable Service: Phalanx Honors - Clarkson University - Apr 2024
Dean's List: Clarkson University - May 2023 and May 2024
Ignite Presidential Fellow: Clarkson University - Aug 2022
(A four-year full scholarship; 1 of 7 selected from a 1000 applicants.)