# KHAGENDRA KHATRI

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## **EDUCATION**

Caldwell University Caldwell, NJ

Bachelor of Science in Computer Science | GPA: 3.82/4.00

Expected May 2025

### **EXPERIENCE**

**Software Developer Intern** 

Caldwell, NJ

Digital Coach

Oct 2024 - Present

- Developed an Al-driven e-learning application using Next.js, React, and Firebase, which enhanced user engagement by 20% through interactive, real-time sentiment analysis in mock interviews.
- Integrated machine learning models in Python and TensorFlow for response analysis, delivering personalized scores and feedback that boosted user engagement by 25% and increased success rates by 15%.

Al Engineer Intern

Remote

Radical AI

Jun 2024 - Aug 2024

- Spearheaded AI solutions development and deployment using OpenAI Assistant API and Google Gemini, implementing Scrum practices to boost system capabilities by 30%.
- Managed end-to-end data pipeline processes, including data collection, cleaning, and preprocessing, to optimize
  data quality for generative AI models, resulting in a 25% improvement in model performance and reliability.

### **Machine Learning Researcher**

Caldwell, NJ

Caldwell University

May 2024 - Aug 2024

- Invented and evaluated Recurrent Symbolic Networks architecture to tackle the vanishing gradient problem in RNNs, enhancing performance by 20% and interpretability for sequential data analysis.
- Collaborated with professors and fellow researchers to refine research methodologies, analyze results, and publish findings in the 28th annual conference of the Consortium for Computing Sciences.

## Software Engineer Intern

New York, NY

Wicked Pav

Jan 2024 - May 2024

- Designed and implemented a batch-processing ETL pipeline utilizing Apache Airflow and Heroku, which optimized data flow efficiency, improved throughput by 30%, and reduced operational costs by 20%.
- Established a seamless data transfer process using REST API in C#, .NET Framework, and React.js, resulting in a 50% surge in user engagement by improving the user experience and system responsiveness.

### **Computer Science Tutor**

Caldwell, NJ

Caldwell University

Oct 2023 - Present

- Mentored over 200 students in Object-Oriented Programming, Machine Learning, and Data Structures, implementing personalized tutoring techniques that raised average student grades by 30%.
- Optimized learning environment by streamlining code review and introducing industry-standard tools such as Git and Docker, resulting in a 30% decrease in coding errors.

### **PROJECTS**

Crystal Math | Flask, React.js, Manim, PostgreSQL, AWS, VerbWire, Terraform | DoraHackPost

- Developed and deployed a mathematical problem-solving tool, transforming it into an immersive and visual
  experience that makes math intuitive and engaging for users of all levels; secured 1st place at HackPrinceton.
- Leveraged a diverse tech stack to build *CrystalMath*, incorporating a fine-tuned Claude model for Manim code generation, an AWS S3 bucket managed via Terraform, and cryptocurrency payments integrated with Verbwire.

### E-Graveyard | Django, React.js, PostgreSQL, Redis, Celery, LangChain | DevPost

- Built an innovative platform enabling users to engage in digital conversations with AI representations of deceased loved ones or inspirational figures, secured **2nd** place at HopHacks Hackathon.
- Implemented voice cloning with Eleven Labs API, custom vector storage using pg-vector in PostgreSQL, LangChain RAG architecture for contextually relevant responses, and Celery for load optimization.

### SKILLS

- Languages: C#, Python, JavaScript, TypeScript, SQL, Java, C, Visual Basic, C++, OCaml
- Frameworks: Django, Flask, ASP.NET MVC Controller, .NET Framework, React, Next
- Libraries: Tensorflow, Pytorch, Scikit-learn, Matplotlib, Pandas, Numpy, NLT