

# PRANAV CHHABRA

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## EDUCATION

### University of Wisconsin – Madison

[Graduated: May 2024]

B.S. in Computer Science with Distinction | 3.9 GPA

*Relevant Coursework: Data Structures and Algorithms, Software Engineering, Deep Learning, Operating Systems, Databases*

## SKILLS & CERTIFICATION

- **Languages & Frameworks:** JavaScript, Java, Python, Swift, SwiftUI, React, React-Native, Next.js, Node.js, Express.js, TypeScript
- **Backend & Cloud:** MongoDB, MySQL, AWS (Lambda, S3, EC2, CloudFront, Route 53, Bedrock, SES), Firebase, Docker, Pinecone
- **AI & Automation:** OpenAI, GPT Vision, AWS Rekognition, UiPath, Hugging Face, Puppeteer, Cheerio
- **APIs & Tools:** REST APIs, Stripe, Groq API, TDD, Agile
- **Certification:** AWS Certified Cloud Practitioner

## DEVELOPMENT EXPERIENCE

### Software Engineering Intern - TeammateME

[Jul 2024- Present]

- Developed and maintained full-stack applications using React, Node.js, and PostgreSQL, improving operational efficiency by **30%**.
- Implemented CI/CD pipelines with GitHub Actions to automate deployments, ensuring faster feature releases and improved code quality.
- Collaborated with cross-functional teams in an Agile-Scrum environment, delivering features **20%** faster.

### Software Engineering Resident - Headstarter AI

[Jul 2024 – Present]

- Led the development of scalable full-stack applications, integrating real-time data processing with SQL databases to reduce query times by **50%**.
- Engineered *Calmify AI* using OpenAI's GPT models and facial recognition, achieving **90%** accuracy for real-time mood detection.
- Built an *AI-powered pantry management system* that automated recipe suggestions, reducing manual input by **95%**.
- Designed AI-driven features for user engagement, such as personalized recommendation engines, improving data accuracy by **80%** and highlighting creativity in AI applications.
- Implemented *AI-powered chatbot* and Natural Language Processing (NLP)-driven solutions to improve response times by **30%**.

### Software Engineering Extern - Capital One

[Sep 2023- Dec 2023]

- Created “MonsterRewards” iOS app using Swift and SwiftUI, increasing user engagement by **20%**. Applied Agile practices to iterate on features and rapidly adapt to changing requirements.
- Optimized MongoDB queries and incorporated AWS services to enhance backend scalability, improving system performance and reliability.
- Applied Agile methodologies, managed sprints, and delivered project **15%** ahead of schedule.

### Software Engineering Intern - AiRo Digital Labs

[Jun 2022 – Aug 2022]

- Built automation scripts using UiPath and VB.NET, streamlining business processes and reducing manual task execution by **30%**.
- Integrated automation tools with cloud services for data storage and processing, saving **20** hours per week for the operations team.

## PROJECTS

### NeuroLens: Brain Tumor Classification | [Github](#) | [Link](#)

[Nov 2024]

- Built an AI model for classifying brain tumors in MRI scans, achieving **~94% accuracy** with a custom CNN and **~99.5% accuracy** using the Xception model via transfer learning.
- Enhanced model interpretability by integrating Gemini 1.5 Flash to generate saliency maps, highlighting regions influencing tumor classification.

### Customer Churn Prediction App | [GitHub](#) | [Link](#)

[Oct 2024]

- Developed a full-stack churn prediction platform using Streamlit, Replit, and machine learning models (XGBoost, Random Forest, KNN).
- Enhanced model accuracy from **75% to 85%** through feature engineering and SMOTE for handling imbalanced data.
- Embedded Groq API to automate personalized email generation and provide tailored churn explanations.

### Professor Rating & Finder | [GitHub](#) | [Link](#)

[Aug 2024]

- Built an AI-driven professor recommendation engine using Puppeteer, Hugging Face, and Pinecone, reducing search time by **50%**.
- Enhanced data accuracy by **80%** with AI-based recommendations and web scraping techniques.

### Calmify AI: Flashcards for Mental Health Support | [GitHub](#) | [Link](#)

[Aug 2024]

- Constructed an AI-driven platform with GPT models and facial recognition for real-time mood detection, attained **90%** accuracy.
- Integrated Stripe API for subscription management, enabling premium features and monetization.
- Implemented personalized flashcard recommendations based on real-time mood, enhancing user engagement and mental well-being.