

Meirzhan Saparov

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EDUCATION

Stetson University – Deland, FL

Expected May 2027

Bachelor of Science in Computer Science, GPA: 3.95/4.0

Relevant coursework: Data Structures & Algorithms, Object-Oriented Programming (OOP), Discrete Mathematics, Software Development Life Cycle (SDLC), Computer Organization, C++ Program Design, Artificial Intelligence

SKILLS & CERTIFICATIONS

- **Languages:** Python, JavaScript, TypeScript, Java, C++, SQL (Postgres)
- **Frameworks & Libraries:** React, Next.js, Node.js, Express.js, NumPy, Scikit-learn, Pandas, TensorFlow
- **Tools:** Git, Docker, AWS, Firebase, NoSQL (MongoDB), Pinecone, Linux, HTML, CSS
- **Certifications:** Supervised Machine Learning: Regression and Classification ([DeepLearning.AI](#))

EXPERIENCE

Headstarter - Software Engineering Fellow | Remote

July 2024 – September 2024

- Led a team of 4 engineering fellows to design, develop, and deploy 5 AI projects using **MVC** design patterns
- Increased data retrieval speed by 15% by integrating **Pinecone** vector database for semantic search, resulting in faster and more relevant user queries, which enhanced overall platform performance
- Partnered with engineers from Amazon, Bloomberg, and Capital One to implement **Agile** methodologies, **CI/CD** pipelines, **Git**, and microservice architectures

PROJECTS

Fraud Detection System | ShellHacks Hackathon 2024 | Team Project

[GitHub](#) | [Devpost](#)

- Led a team of 4 developers to build a Fraud Detection System within a 36-hour hackathon, coordinating frontend, backend, and machine learning tasks
- Engineered **Flask REST API** endpoints with **Pandas** DataFrame processing and machine learning model integration that processes batch transactions in real-time
- Trained a Random Forest Classifier model on 1M financial transactions, achieving 96% accuracy in fraud detection with **Scikit-Learn** and **NumPy**

SmartRate | Personal Project

[GitHub](#) | [Project](#)

- Built a full-stack Stetson professors rating assistant using **TypeScript**, **React**, **PostgreSQL**, **Next.js**, and Llama 3.1. Enhanced user experience (UX) by reducing query complexity by 40% and cutting development time by 25% through **Prisma ORM** with **PostgreSQL** implementation
- Created a web scraper utilizing **Python** libraries like BeautifulSoup and Selenium, to automate the extraction of 535 Stetson professor profiles and 2000+ student reviews from Rate My Professors
- Improved professor search accuracy by using Pinecone vector database with OpenAI embeddings to develop a Retrieval-Augmented Generation (RAG) system, resulting in a 50% increase in relevant search results
- Implemented a **RESTful API** using **Next.js** API routes, enabling data flow between the frontend and backend, improving application performance

FlashAI | Personal Project

[GitHub](#) | [Project](#)

- Developed a full-stack flashcard application powered by **Generative AI** using **Next.js**, **TypeScript**, and **React**
- Integrated **Stripe API** for payment processing and Clerk for secure backend and authentication
- Reduced data latency and enabled cross-device synchronization of user-generated content by incorporating **Firebase** for real-time data storage and retrieval
- Created a PDF flashcard generation feature by integrating the open-source Mixtral, resulting in automated flashcard generation from uploaded PDF files