Zain Rahman

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EDUCATION

Rice University   **Houston, TX**
B.A in Computer Science and Business with Finance Concentration   *May 2027*
GPA: 3.85/4.0 | **Relevant Coursework**: Data Structures and Algorithms, Discrete Math, Probability and Statistics

WORK EXPERIENCE

U.S Department of Treasury   **Washington, DC**
AI Architect Intern   *June 2025 – Present*
- Engineered multi-tenant SaaS compliance platform hosted on Azure Government using Azure Foundry
- Implemented private vector databases per tenant for isolated embeddings
- Developed AI modules automating SSP drafting and recommendation compliant with FedRAMP and CMMC

Rice Civil and Environmental Engineering   **Houston, TX**
Undergraduate Research Assistant   *Sep 2024 - Present*
- Only undergraduate in team of 8 selected to be part of NSF-Funded Research Lab
- Built and trained LSTM and dGEVnet models utilizing PyTorch to enhance hydrologic forecasts
- Integrated GIS datasets to map regional patterns; reduced preprocessing time by 30%
- Led model validation and achieved a 15% improvement in accuracy on out-of-sample precipitation events

QuikFlip   **Houston, TX**
Co-Founder and Founding Software Engineer   *Jul 2024 - Mar 2025*
- Built full-stack crypto payments app using React, AWS Lambda, and S3; developed backend conversion logic
- Set up CI/CD deployment pipeline via AWS CodePipeline and CloudWatch for automatic monitoring
- Wrote Postman test suites for API endpoints; ensured response latency stayed under 200ms
- Raised $30,000 pre-seed from Jefferson Foundation to scale MVP to market and YC Top 10%

Civitas   **Houston, TX**
Founder and Executive Director   *Dec 2023 - Sep 2024*
- Created AI-based grading platform for public policy outcomes using NLP and public datasets
- Managed full-stack dev team and deployed open-source platforms to early users in the Houston area
- Used spaCy and scikit-learn for modeling, integrated front end with Flask API

Quzara   **Tysons Corner, VA**
AI/ML Software Engineering Intern   *May 2024 - Aug 2024*
- Wrote detection rules in Python for SOC alerts; used pandas and regex to detect anomalous login events
- Built interactive notebooks in Jupyter to visualize trends in SIEM event logs
- Presented security analysis to 60+ staff during summer summit

TECHNICAL PROJECTS

dGEVNet – Spatiotemporal Rainfall Forecasting Model
PyTorch, Numpy, GIS, Matplotlib
- Developed a deep learning architecture to predict nonstationary rainfall patterns using GEV distributions
- Regularized predictions with spatial Laplacian smoothness to enforce continuity
- Integrated geospatial datasets and automated preprocessing to reduce runtime by 30%

Booie – Income-based Education Financing Platform
React (TypeScript), Supabase, PostgreSQL, Framer Motion, TanStack Query
- Built full-stack ISA financing app with personalized repayment modeling and student onboarding
- Implemented secure auth, multi-step onboarding, and financial data intake using Supabase
- Designed 12-table PostgreSQL schema for user profiles, applications, and document workflows
- Deployed edge functions, RLS, and audit logging for secure session and data compliance

SKILLS & INTERESTS

Languages & Tools: Python, Java, React, PyTorch, TensorFlow, Jupyter, Postman, AWS, Git, GIS, scikit-learn, Flask
Other: Excel (Advanced), PowerPoint, Urdu (Native), Arabic (Intermediate)