Arush Bhardwaj

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Education

Rutgers University - Honors College　　　　　　　　　　　　　　　　　　　　New Brunswick, NJ
Bachelor of Science in Computer Science and Finance　　　　　　　　　　　　　　　　*May 2026*

Technical Skills and Relevant Coursework

Languages: Python, Java, JavaScript, HTML/CSS, C, C++, Git, SQL, Assembly, Power Fx, R, MATLAB, .net, JSON, XML
Developer Tools: Azure DevOps, Azure OpenAI, Azure Functions, VS Code, IntelliJ, MS Copilot Studio, MS Power Apps, Oracle, Docker, AWS
Frameworks: LangChain, React, Pandas, NumPy, PyTorch, Bootstrap, Linux, Express, Node.js
Relevant Certifications & Coursework: Azure Fundamentals (AZ-900), Data Structures and Algorithms, Computer Architecture, Linear Algebra, Discrete Structures I and II, Calculus I and II, Investment Analysis, Financial Accounting

Experience

BD (Becton, Dickinson and Company)　　　　　　　　　　　　　　　　**June 2024 - Present**
AI/ML Software Engineer　　　　　　　　　　　　　　　　　　　　　　　*Franklin Lakes, NJ*

- Developed and deployed an Agentic Retrieval Augmented Generation (RAG) architecture from scratch for a Generative AI use case, increasing efficiency by an average of 20+ minutes per employee within the organization's business functionality
- Leveraged LangChain orchestration framework in Python alongside Microsoft Azure Open AI services to effectively utilize Azure AI Search vector databases for efficient indexing, storage, and retrieval of source knowledge data; Applied Azure DevOps as well as Jira Confluence for agile product development, ensuring efficient tracking and knowledge management throughout the project lifecycle
- Successfully trained the Gpt-4-turbo LLM in accordance with provided source documentation to meet use case requirements and achieve approximately $450,000 in cost savings

Goldman Sachs　　　　　　　　　　　　　　　　　　　**December 2022 – January 2023**
Software Engineering Virtual Experience Program　　　　　　　　　　　　　　　　*Remote*

- Participated in a collaborative project through Goldman Sachs Virtual Experience Program; Gained insight into a tech-empowered and people-led work environment
- Evaluated and debugged 50+ implementations of hash algorithms, in addition to analyzing 10+ AI models that automated customer service & examined the security of databases

Freelance Web Development　　　　　　　　　　　　　　　　**April 2020 – October 2020**
Full Stack Website Design and Development　　　　　　　　　　　　　　　　　　*Remote*

- Orchestrated the full-stack development of 2 complete website interfaces for two independent local businesses; Contributed significantly to the front-end UI/UX design process of a website for a small company using JavaScript
- Utilized agile methodology to manage the product lifecycle, ensuring iterative development, continuous feedback, and timely delivery of high-quality web solutions

Projects

Digital Innovation Shaping Analyst AI | *Python, Azure OpenAI API, Azure AI Search, Azure Functions, Dataverse*

- Designed a Python + LangChain orchestrated Retrieval-Augmented Generation (RAG) application trained on 50+ corporate use cases, enhancing AI capabilities
- Optimized model functionality using ada-002 embeddings and Nearest Neighbor Search (NNS) algorithms, efficiently handling diverse data types and metadata while employing Azure Functions and Dataverse for scalable backend processes, secure data management, and automation of AI services
- Implemented Trees and Hash Tables to boost indexing and storage performance in Azure AI Search, tested on 600+ cases

Responsible AI Governance Module | *Python, Azure OpenAI API, MS Power Apps, Power Fx, Dataverse*

- Pioneered front-end functionality using Microsoft Power Apps and Power Fx, with an intuitive interface and a comprehensive weighting system for questionnaire responses to generate accurate risk profiles for proposed AI use cases
- Employed Python, Azure OpenAI API, and neural networks to leverage machine learning and data science techniques for calculating risk profiles based on attributed weightages
- Integrated seamlessly with Dataverse for secure data management and storage, streamlining AI governance workflows, and reducing time spent by 3+ hours per proposed use case as well as workforce effort in assessing and approving new AI projects

Personal Portfolio Website (arushb13.github.io) | *Bootstrap, React, Node.js, Express.js, REST APIs, JavaScript*

- Constructed an interactive and responsive user interface (UI) using Bootstrap, with JavaScript, CSS, and HTML for front-end experiences; Implemented back-end functionality with Node.js and Express.js to manage server-side logic, handle API requests from sources like LinkedIn, and ensure seamless data flow
- Harnessed version control using Git and GitHub for collaboration and code management, ensuring robust development workflows and easy deployment