Sohel Mozid Rahman

Software Engineer

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Summary: Full-stack software engineer with a wide variety of professional interests. Experienced in building fast, scalable applications that operate in the cloud. Able to work independently as well as in a team setting.

Technologies and Languages

- Languages: Python, C, C++, C#, Java, HTML, Javascript
- Frameworks: Django, Tailwind CSS
- Technologies: Nginx, Gunicorn, Pandas, Pygame, Bash Scripting, Git, Unity Engine
- Databases: MySQL, PostgreSQL, SQLite
- Cloud: AWS, Azure, GCP
- Operating Systems: Windows OS, Linux OS (Mint and Ubuntu)

Projects

- **genetic-arcade:**

  Python based project that showcases the power of genetic algorithms in a variety of visual environments.

  - Built machine learning models that used unsupervised learning to solve diverse problem sets in a changing visual environment.
  - Effectively designed code implementing a genetic algorithm (NeuroEvolution of Augmenting Topologies - NEAT) to tackle evolving problem sets.
  - Implemented Git version control to effectively document various stages of the project development and keep track of evolving features in the codebase.

  Technology used: python, pygame, python-neat, matplotlib

- **retro_site:**

  Web project that aims to recreate a nostalgic UI look and feel by drawing inspiration from retro operating systems such as Windows 95 and 98.

  - Designed the UI/UX to be accessible from any viewport size (mobile, tablet, desktop, etc)
  - Meticulously tested the site to ensure fluid transitions between different viewpoint sizes upon window resizing.
  - Optimized the project to minimize AWS storage and bandwidth resource usage and stay within desired quotas.
  - Deployed on AWS S3 and utilized a custom domain to make the project easily accessible to the public.
  - Implemented a client-side scripting only model in order to further reduce usage of AWS resource quotas.
  - Debugged any issue that appeared throughout the development process that interfered with application functionality and efficiency.

  Technology used: HTML, CSS, Javascript, Tailwind CSS, AWS S3 bucket

- **django_blog:**

  python application with a focus on simplicity and modular design principles in mind.

  - Placed focus on making UI/UX accessible and lightweight.
  - Created and configured an Nginx server running on an AWS EC2 VM instance.
  - Utilized Gunicorn as the Web Server Gateway Interface (WSGI) between django_blog application and Nginx server

  Technology used: Django, Python, AWS EC2, Nginx

- **pdf_extractor**:

  simple python program that extracts specific data from a table in a pdf file.

  - Introduced bash scripting to automate data extraction and organization.
  - Included dummy files with mock data to demonstrate usage principles.
  - Extensively documented methods to customize the program in order to fit individual scenarios.

  Technology used: tabula, pandas, numpy, bash scripting

Education and Certifications

- **M.Sc. Computer Science,** City College of New York, USA. **2022–2024**
- **B.Sc. Computer Science,** North South University, Bangladesh **2016–2021**

Achievements

- 100% scholarship at North South University for placing second in the undergraduate admission test.
- US government-funded Kennedy-Lugar Youth Exchange and Study scholarship (highly competitive with an acceptance rate of only 3%) which brought me to Forest Hills High School, New York.

Languages

- English (Completely fluent)
- Bengali (Native)
- Hindi (Conversational)

Interests

I have numerous hobbies and interests, including:

- Reading (with a focus on history, science fiction, philosophy and anthropology)
- Basketball
- Gardening
- Swimming