Omer Abbas

571-320-9718 | abbas.omer2002@gmail.com | Personal Website | Github | Ashburn, VA

EDUCATION

Virginia Tech   Aug. 2021 – Dec. 2024
B.S. Computer Science, Math Minor   *GPA 3.9/4.0*
- Outstanding Student Award (Sep. 2023) (link), Dean's List with Distinction, Charles and Jean Sptizer scholarship
- Data Structures and Algorithms, Cloud Software Development, Software Engineering, Problem-Solving

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, React, HTML, SQL, GraphQL, CSS, XML
Software Engineering Tools: AWS, MySQL, Django, Node.js, Docker, Shell Scripting, GDB, Unit Testing, Git
Certifications: AWS Cloud Practitioner

EXPERIENCE

Software Engineer Intern   June 2024 – Aug. 2024
Peraton   *Herndon, VA*
- Worked in a fast-paced agile workflow to develop a full-stack React-Django software solution to help Peraton secure contracts
- Developed the account and authentication functionality to support permissions, per-user feeds, and security in the cloud through the use of rotated and refreshed Json Web Tokens (JWT's)
- Developed an automated data pre-processing and collection pipeline to populate a Postgres database with monthly releases of relational datasets
- Created the essential CRUD of the database in the Django framework and supported the changes in the frontend with React UI and GraphQL queries

Project Manager | CoStar Homes.com Enhancement Project   Aug. 2024 – Dec. 2024
Virginia Tech Computer Science Department   *Blacksburg, VA*
- Led a team to develop a ground-up, full-stack, containerized app to tailor Homes.com to students, won best Capstone project
- Organized weekly meetings with CoStar stakeholder, executed the project using ScrumBan: deconstructed goals into sprints and user stories, allocated work based on team strengths, maintained Kanban Boards, and held weekly scrum check-ins
- Developed novel algorithms to make home search a visual experience: sub-clustering, proximity coloration, used dynamic programming to find the optimal homes based on distance, price, and sqft constraints
- Managed the repository by creating diverging feature branches and handling merge requests and conflicts for a clean, sequential master branch

Teacher Assistant   May 2023 – Present
CS3114: Data Structures and Algorithms (Java) | CS2104: Problem-Solving (Python)   *Blacksburg, VA*
- Produced hour-long videos and slides deconstructing project requirements and concepts to help bridge the gap between concept and code
- Assessed student code quality and guided their problem-solving approach towards the solution with optimal time complexity

EXTRACURRICULARS, PROJECTS

Coding Club Leader | *CS Squared, Virginia Tech*   Dec. 2023 – Present
- Led in a volunteering club aims to enhance the technology literacy of the community and inspire the next generation of programmers
- Coordinated with the Blacksburg library to host a free coding club for children, provisioned volunteers and devices
- Worked with instructors to create lesson plans to make coding an enjoyable experience for young learners
- Contributed to our Web-Development team's effort in refactoring a client's website into Django, and actively involved in our weekly tech help sessions that we host for the Blacksburg elderly community

Projects | *Full-Stack Websites, Mobile App, AI*   Aug. 2023 – Present
- Deployed full-stack websites to AWS featuring accounts, databases, geocoding, API's, and file upload (EC2 Server)
- Developed mobile app featuring text interface, shorts, and swippable cards (entrepreneurial project) (link)
- Tested the viability of using a weighted sum to tune the hyperparameters of classification models (link)