

Piyush Razdan

Software Engineer, Open Sourcerer

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EXPERIENCE

Environment and Climate Change Canada | Software Developer Intern

May 2022 - Aug 2023

- Designed and formulated DevOps management tools using Python, Postman, and REST in Azure, achieving a 30% boost in operational efficiency.
- Overhauled CI/CD pipelines and implemented automated backup systems, reducing times by 40% and boosting resource efficiency by 25% through Terraform integration.
- Developed a new user interface for efficient project decommissioning, enhancing decision-making efficiency by 20%.

PROJECTS

DevNexus | React, Node.js, Express, GitHub Pages, VS Code

- Engineered a responsive portfolio using React and Node.js, featuring secure API integration with Express and tested deployments via VS Code.
- Utilized GitHub Pages with deployment workflows in VS Code for real-time updates, seamless integration, and efficient project management.

Wordle Frenzy | React, jQuery, Express, Fetch API, Web Sockets, Git, VS Code

- Built a fully-functional multiplayer arena using React for the front-end and Web Sockets for bi-directional communication, improving user engagement.
- Integrated advanced gameplay features, including physical keyboard support, winner display, and synchronized timers for competitive play.
- Ensured persistent user identities through cookie management, resulting in a 40% increase in session duration and maintaining unique identifiers across sessions.

Infrastructure Lifecycle Automation | Python, REST API, Azure, VS Code

- Led the development of an cloud-driven project setup system using Python and Azure's RESTful API, improving project deployment precision and scalability by 30%, effectively managing over 50+ projects monthly.
- Managed a project cleanup feature which decommissions outdated projects and reclaims over 2 terabytes of server storage annually, optimizing resource allocation.
- Devised a user access management system that integrated Azure licenses with role-based access controls, decreasing unauthorized access incidents for over 300+ users across the organization.

CI/CD Backup Integration | Terraform, JSON, Python, Azure, PyCharm

- Optimized virtual machines and blob storage using Terraform, refining infrastructure-as-code practices and enhancing system consistency by 40%.
- Engineered CI/CD pipelines using YAML to streamline code integration and deployment, bettering development speed and system performance.

Three Musketeers AI-Assisted | Java, JavaFX, JUnit, MVC, GitHub Actions, Eclipse

- Developed an AI-driven board game, Three Musketeers, using Java and JavaFX, featuring a greedy AI agent implemented with the minimax algorithm, emphasizing object-oriented programming principles.
- Employed design patterns and coordinated development with GIT branches, leveraging agile workflows for iterative progress and continuous integration.

EDUCATION

University of Toronto | HBSc in Computer Sci. and Geographical Information Sys.

2019-2024

CGPA: 3.25/4

Courses - Algorithm Analysis, Cloud Computing, Computer Networks, Data Structures, Database Management, Functional Programming, Linear Algebra, Network Security, Software Design, Statistics, Systems Programming, Web Development

SKILLS

Programming Languages

Assembly, C, Haskell, Java, JavaScript/TypeScript, PHP, Python, Racket, R, Shell, SQL, YAML

Technologies

- Ajax, Django, Express, Fetch, HTML/CSS, JavaFX, jQuery, JUnit, Node.js, NumPy, PyTest, React
- AWS, Azure, Google Cloud, CLion, Eclipse, IntelliJ, PyCharm, VS Code
- Apache, CI/CD, ESRI, Git, LaTeX, MongoDB, PostgreSQL, Postman, REST, Terraform