PIYUSH RAZDAN

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Education

University of Toronto   **September 2019 – November 2024**
Honours Bachelor of Science in Computer Science and Geographic Information Systems   *Toronto, Canada*

Relevant Coursework

- Cloud Computing
- Full Stack Development
- Data Structures
- Software Design
- Database Management
- Systems Programming
- Functional Programming
- Unit Testing

Experience

Environment and Climate Change Canada (ECCC)   **May 2022 – August 2023**
Software Developer Intern   *North York, Toronto*

- Orchestrated the development and implementation of DevOps management tools, utilizing Python, Postman API, and REST API within Microsoft Azure to enhance operational efficiency and system reliability.
- Engineered and maintained CI/CD pipelines, implemented automated backup solutions, and deployed Terraform for swift resource provisioning in Azure, significantly improving deployment workflows.
- Developed a user interface for project decommissioning and crafted analytical scripts to aid Cloud Architects and Business Analysts in tracking and evaluating cloud service advancements.

Projects

Wordle Multiplayer | *React, Express, Fetch, JavaScript, Web Sockets, jQuery, VS Code*   **March 2024 - Present**

- Development of a custom variation of the famous Wordle gamne with enhanced features prototyping over **mordle.io**.
- Created a fully-functional **multiplayer** Wordle game, utilizing React for the front-end and Web Sockets for real-time, **bi-directional** communication between clients and server, ensuring a **dynamic** and interactive user experience.
- Integrated **advanced gameplay features**, including a physical keyboard support for **accessibility**, a display feature for recent game winners, and a synchronized global timer to enhance **competitive play** across different time zones.
- Engineered robust network communications using Web Sockets, and maintaining **persistent user identities** with **cookies**, which optimized user experience by providing **seamless gameplay** and consistent usernames across **sessions**.

Terraform Deployment | *Java, Python, Microsoft Azure, PyCharm*   **April 2023**

- Enhanced and managed **virtual machines** and storage accounts using Terraform, improving infrastructure as code practices and **system reproducibility**.
- Automated **CI/CD pipelines** with **YAML**, enhancing code integration and deployment processes, which **significantly increased** development velocity and **reliability**.

Full-Stack Azure REST API Automation | *Python, REST API, Microsoft Azure, VS Code*   **June 2022**

- Led an **automated project setup system** using **Python** and Azure's **Restful API**, which configures and launches client projects with specified attributes, ensuring **precision and scalability**.
- Designed and implemented a **responsive UI** for streamlined client data input, significantly reducing setup time and improving user experience.
- Managed a comprehensive project **cleanup feature**, automating the decommissioning of obsolete projects and resources, thereby **optimizing** resource allocation and system performance.
- Devised a **role-based user access management system**, integrating diverse Azure licenses into projects with role-specific access controls to enhance **security** and operational efficiency.

Discord Weather Bot | *JavaScript, TypeScript, Node.js, Weather API, VS Code*   **January 2022**

- Developed a comprehensive weather bot for UofT PyJaC Hackathon, utilizing **API integration's** to provide real-time weather updates and forecasts, which **enhanced user interaction** and utility.
- Implemented database functionality for historical weather data access, offering users personalized and **location-based** weather statistics in a **marketable format**.

Three Musketeers | *Java, JavaFX, Agile, Design Patterns, File IO, Eclipse*   **December 2021**

- Created a **strategy-based game** employing diverse **AI modes**, encouraging dynamic user interactions and strategic thinking.
- Led a team using **Agile methodologies**, coordinating development through Git and GitHub, which fostered a **collaborative** and adaptive development environment.

Technical Skills

Languages: Assembly, C, CSS, Haskell, HTML, Java, JavaScript, PHP, Python, Racket, Shell, TypeScript, YAML
Libraries/Frameworks: Ajax, Carto, Express, FortiWeb, JavaFX, jQuery, JUnit, Node.js, NumPy, PyTest, React
Developer Tools: ArcGIS, ArcMap, CI/CD, Erdas, GitHub, LaTeX, Postman API, REST, Sockets, Terraform
Databases: MongoDB, PostgreSQL
Miscellaneous: AWS, Azure, Google Cloud, CLion, Eclipse, IntelliJ, Linux, Office 365, PyCharm, Sony Vegas, VS Code