Sparsh Trivedy
UBC, Year 3, Computer Science Major

sparsh.trivedy2140@gmail.com   *personal website*   *github.com/sparshtrivedy*

Technical Skills

Programming: Python, Java, C++, C, C#, JavaScript, TypeScript, Python, Numpy, Pandas

Front-End: HTML, CSS, React.js, Redux, Axios

Back-End: Node.js, Express.js, .NET, Django

Database Management: SQL, PostgreSQL, SQLite, MS SQL Server, MongoDB

Serverless: AWS, Lambda, Cognito, IAM, DynamoDB

Tools: Git, GitHub, Docker, Postman, Postbird

Work Experience

Fullstack Web Developer   *May 2023 - present*
UBC Faculty of Forestry   *Vancouver, BC*

- Collaborated on the development of the TA application portal, utilizing Python, Django, and JavaScript.
- Designed and implemented a student dashboard, showcasing application analytics through visual aids such as charts and graphs for enhanced data visualization and comprehension.
- Enhanced functionality by adding a tab that allows users to upload training certificates, providing visibility to instructors when reviewing student applications.
- Revamped the UI of the student and instructor views, ensuring adherence to UI/UX principles and delivering a visually appealing and intuitive UI.

Fullstack Web Developer Co-op   *Sep 2022 - Apr 2023*
BGC Engineering Inc   *Vancouver, BC*

- Developed fullstack features using TypeScript, React.js, Redux, .NET and MS SQL Server in an agile scrum environment.
- Implemented a modal dialogue that allows users to copy data from existing inspections into a form when adding new inspections, saving them time spent on repetitive data entry.
- Created a searchable dropdown component used across all forms, enabling users to filter through organization users, improving overall user experience.
- Developed an attribute table to store and organize all instrumentation data, enhancing data accessibility for clients.
- Implemented nested repeating sections for landslide inspection forms, allowing users to manage hazards and associated mitigations efficiently.
- Enhanced attachment manager by adding tags for categorization and organization of attachments.

Technical Projects

PlayBook – Academic   *Jul 2023*

- Developed a sports management platform using PostgreSQL, Express.js, and React.js, focussing on effective relational database management.
- Designed and implemented a well-structured database with considerations for weak entities, ISA relationships, cardinalities, and participation constraints, ensuring efficient storage of data.
- Implemented admin and team manager views with role-based permissions, ensuring appropriate access control and security measures.
- Incorporated authentication and authorization using JWT web tokens to safeguard user data.
- Enabled users to schedule games, manage players, teams, sponsors, and attendees, providing comprehensive control and organization.

Notes REST API – Personal   *Jul 2023*
- Created a notes REST API using AWS serverless services and Node.js, with Lambda functions handling API requests routed through API Gateway.
- Set-up Cognito user pools and IAM user roles to enforce authorization, ensuring that only authorized users could view the data.
- Stored user and notes data in DynamoDB, providing a scalable and reliable database solution.
- Implemented CI/CD pipelines using AWS CodePipeline to automate the deployment process and ensure efficient delivery of updates.
- Strengthened security measures by incorporating CloudFormation and Web Application Firewall (WAF), enhancing protection against threats and attacks.
- Created unit tests using Jest to ensure the reliability and functionality of the REST API, reducing risk of bugs

Get-it-together – Personal   *Apr 2023*
- Developed a task-tracking application using the MERN stack (Express.js, Node.js, React.js, Redux, Axios, MongoDB).
- Implemented authentication and authorization functionalities using JWT tokens and bcrypt for secure password hashing, prioritizing security in the development process to safeguard user data privacy.
- Enabled logged-in users to perform Create, Read, Update, and Delete (CRUD) operations on tasks.
- Implemented robust error handling mechanisms to enhance application stability and user experience. [View here](#).

Vibing – Personal   *Jul 2022*
- Developed a front-end Spotify playlist maker application using React.js and integrating with the Spotify API.
- Implemented functionality for users to browse songs by song name, artist, and album.
- Integrated the ability for users to add selected songs to a playlist and customize the playlist name. [View here](#).

Volunteer Experience

Academic Experience Coordinator
UBC Science Undergraduate Society   *Jul 2022 - present*

Collaborate with a team of coordinators to enhance the academic experience of UBC students by organizing surveys and events to guide them towards appropriate resources and facilitate exploration of diverse opportunities.

Software Team Member
UBC Rover Engineering Design Team   *Sep 2022 - Apr 2023*

Utilized ROS QT to develop a graphical user interface (GUI) for our rover, displaying various metrics such as position and temperature. Implemented a convenient launch button feature to start-up the rover.

Education

University of British Columbia, Vancouver, BC   *Sep 2020 - May 2025*
Bachelor of Science, Computer Science Major
Cumulative average: 84.2%
Outstanding International Student Award, 2020