Diljot Singh Garcha

hello@diljot.dev
linkedin.com/in/diljotsg
github.com/diljotsg
diljot.dev

TECHNICAL EXPERIENCE

Software Developer 2   **01/2021 – Present**
D2L | Winnipeg, MB
D2L is a Canadian company specializing in E-Learning, creators of the Brightspace Learning Management System

- Designing and architecting an event scheduling system to automatically adjust student grades in response to due dates using Amazon Web Services including Lambda, DynamoDB and SQS
- Full-stack development of features in instructor and student-facing content views within the Brightspace learning platform using C#, .NET, and LitElement

Software Developer, Co-op
D2L | Winnipeg, MB   **05/2020 – 08/2020**
D2L | Winnipeg, MB   **09/2019 – 12/2019**

Software Developer, Co-op   **01/2019 – 04/2019**
Invenia Technical Computing Corporation | Winnipeg, MB
Invenia is a Software Company focused on optimizing the world's electrical grids to reduce the earth's carbon emissions

- Implemented new features for a data acquisition, parsing, and transformation system as part of a cloud-based machine learning platform that uses high-frequency data to optimize power grids
- Developed features using Python and various Amazon Web Services including Lambda, DynamoDB, CloudFormation, SQS, SNS, and S3
- Created a tool to automate secret retrieval from 1Password to AWS

Undergraduate Researcher
Human-Robot Interaction Lab at University of Manitoba | Winnipeg, MB
Ambivalent Sexism Theory: Impact on HRI   **05/2018 – 08/2018**
Flexible Avatar Models for In-The-Wild Robots   **05/2017 – 08/2017**

- Developed interfaces to wizard various robots in Python and C#
- Conducted and coordinated HRI studies with over 90 participants

RECENT PROJECTS

Throne: Find, rate, and review washrooms   **01/2020 – 04/2020**
Group Project

- Lead the back-end development team using Python and Flask
- Implemented a REST API using Amazon Web Services such as, Lambda, Cognito and RDS
- Setup the continuous integration and deployment pipelines for the application using GitHub Actions
- Developed front-end features for the web and mobile applications using React and Swift

EDUCATION

Bachelor of Computer Science - Honours   **09/2016 – 05/2021**
University of Manitoba | Winnipeg, MB

- Cumulative GPA: 4.16 / 4.50
- Faculty of Science Undergraduate Research Award - 2017 & 2018
- Dean's Honour List - Fall 2016 to Summer 2019
- Minor in Philosophy

TECHNICAL SKILLS

Languages
- C#
- C / C++
- Java, JavaScript & Python

Technologies
- Amazon Web Services (AWS)
- Flask & Serverless Dev
- Node.js, React & Redux

PUBLICATIONS

2023 | Int J of Soc Robotics
Face to Face with a Sexist Robot: Investigating how women react to sexist robot behaviors

2019 | HRI '19
Infrasound for HRI: A Robot Using Low-Frequency Vibrations to Impact How People Perceive its Actions

2019 | HRI '19
Good Robot Design or Machiavellian? An in-the-wild robot leveraging minimal knowledge of passersby's culture

2018 | HAI '18
Subliminal Priming in Human-Agent Interaction: Can Agents Use Single-Frame Visuals in Video Feeds to Shape User Perceptions?

PROJECTS

Flair: Web Server
Individual Project

- Multi-threaded web server built with Python that supports GET and POST requests

Wave Music Player
Group Project

- Minimal, intuitive and accessible Android application for managing and playing music

Resume Creator
Group Project

- Winner of the *Most Innovative Project Award* at MLH Local Hack Day