

# Gagan Heer

## Junior Software Developer

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### SKILLS

**Technical Skills:** Java, Python, C#, C++, SQL, HTML, Javascript, NodeJS, AWS, Heroku, Git

**Soft Skills:** Customer service experience, Flexible team player, Effective communicator

### TECHNICAL PROJECTS

#### JackPotBot | Python | Capstone Project

- Implemented a new machine learning reinforcement algorithm called DQfD
- Tested the accuracy and performance of the algorithm using Blackjack
- Compared and contrasted the results with other reinforcement learning algorithms
- Required lots of researching, iterating, and troubleshooting
- Object-oriented design with agile methodology
- Used Python libraries such as Tensorflow, Numpy, Pandas, and Matplotlib

#### TaskAsk | NodeJS | Industry Sponsored Project

- Task management app that could be used to assign and track tasks through Slack
- Procedural design with agile methodology
- I was responsible for backend functionality as well as API integration
- Integrated the app with the Slack API, JIRA API, and a PostgreSQL database

#### MRI Tumor Detection | Python | Major Team Project

- Machine learning program that analyzes brain tumors from 3D medical image scans
- Image processing to isolate tumor area and reduce dimensionality
- Machine learning to predict the survival rate of the patient from the tumor
- I was responsible for the machine learning backend as well as integration
- Object-oriented design with waterfall methodology
- Used Python libraries such as SciPy, Numpy, Keras and Matplotlib

#### Bones Engine | C++ | Team Project

- Game engine designed and developed from scratch
- Built a roguelike dungeon crawler game using the game engine
- I was responsible for input handling, object loading, and gameplay logic
- Object-oriented and entity component system design with agile methodology
- Used C++ libraries such as SDL, OpenGL, FMod, and Eigen

### **RockRyder | C# | Team Project**

- 2.5D endless runner action game designed in Unity
- Contains multiple levels, shop, powerups, items, and narrative cutscenes
- I was responsible for gameplay logic and debugging
- Entity component system design with agile methodology

### **JavaShark | Java | Individual Project**

- Program that parsed and analyzed network packet captures from Wireshark
- Displayed useful information like network usage and size of data loads
- Required planning and problem solving
- Object-oriented design with waterfall methodology

## **EDUCATION**

### **Bachelor's of Technology Degree**

**2018 - 2020**

British Columbia Institute of Technology, Burnaby BC

Relevant Coursework: software engineering, algorithms, data structures

### **Computer Information Technology Diploma**

**2016 - 2018**

British Columbia Institute of Technology, Vancouver BC

Relevant Coursework: software design, web development, cloud computing

## **WORK EXPERIENCE**

### **Server**

**2015 - 2020**

Whitespot, Vancouver BC

- Fostered leadership skills by training and coaching over 20 new employees
- Enhanced communication skills by handling over 30 customer phone calls per day
- Provided quality customer service to over 60 customers daily
- Increased product sales by highlighting and upselling featured items
- Addressed customer concerns empathetically which improved customer satisfaction

### **Production Associate**

**2013 - 2015**

Edward Wear Inc, Vancouver BC

- Organized and handled sensitive data for more than 80 business clients
- Increased workplace productivity by testing and evaluating new software applications that were more efficient than the ones we were using
- Adapted to the busy environment and performed many different tasks such as creating informative videos for clients, designing business cards, cataloging information for tax season