020 4148 2170 Jeff Smith jsmi607@aucklanduni.ac.nz
Computer Scientist

Contact:

020-4148-2170
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Education:

University of Auckland (July 2021 – Nov 2024 (estimated))
Bachelor of Computer Science with a focus on Math and Statistics.
GPA: 7.7/9

Programming Languages:

- Java
- Python
- HTML/CSS/Javascript
- R
- C#
- Rust

Skills:

- Team Work
- Communication
- Leadership
- Problem Solving
- Teaching Concepts and Scenarios
- Front End Web Element Design
- Linux and Windows Operating Systems
- Math and Statistics

Volunteering:

- Class Rep for:
  - Physics 140
  - Computer Science 220
  - Computer Science 320
- Teacher at Code Club 2021.

Achievements:

- High Distinction (A+) for:
  - CS235: Software Development Fundamentals
  - CS230: Object-Oriented Software with Java
  - CS220: Algorithms and Data Structures
  - CS130: Software Fundamentals (DS&A)
  - CS101: Programming Principles
  - STATS220: Technology in Statistics
  - STATS101: Intro to Statistics
  - Math120: Algebra
  - EDUC121G: How people learn
- Distinction (A/A-) for:
  - CS225: Discrete Mathematics
  - CS210: Low-Level Programming and Systems
  - CS120: Math for Computer Science
  - CS110: Computer Systems Introduction
  - Stats201: Data Analysis
  - Stats125: Probability and Applications
  - Math208: General Mathematics 2
  - Math108: General Mathematics
  - Physics140: Logic Gates and Circuit Design
  - Physics120: Physics Concepts

Aspirations / Interests:

- Software Development
- Simulation Programs
- Math Programs
- Web Development
- Teaching

Personal Statement:

I have been drawn to Optiver due to its reputation for promoting continuous learning with challenging topics. The company's commitment to embracing challenges resonates with my aspirations in software and simulation development. I am particularly excited to collaborate with like-minded individuals focused on continuous learning and accomplishing challenges.
I have relentlessly pursued learning as showcased by my current job as a math tutor, this role has significantly developed my communication skills to better convey scenarios so everyone understands.
The projects I have completed, such as the Flow Field Simulator and the Maze Project, demonstrate my capability to tackle complex problems. Not only did these require technical prowess but also a creative approach and design, reflecting my commitment to creating innovative solutions.

Work Experience:

- Cluey, Sydney, AU (Online)
  - Math And Physics Tutor (July 2023 – Current)
    - Communication Skills: Developed ability to explain algorithms and reasoning.
    - Understanding Skills: Developed ability to understand how other people understand a scenario and work with their understanding as opposed to mine.
- KFC, Auckland CBD, NZ
  - Team Member (January 2023- July 2023)
    - Teamwork Skills: Collaborated with other team members to manage orders that leave at the same time
    - Communication Skills: Interacted with customers to understand their preferences and needs.
- Canvas Plus, Wellsford, NZ,
  - Data Entry (July 2020 – November 2020)
    - Data management and collaboration: Designed tables to display relevant information on old paper forms – still in use today.
    - Teamwork: Collaborate with accountants to decide what information is important and what is not when designing the table.
- Kaipara Kids, Maungaturoto, NZ,
  - After School Caretaker (July 2020 – November 2020)
    - Patience and empathy: Ensured student's safety and well-being, and understood their needs and feelings.
    - Leadership: Actively engaging with students in activities and constructing a positive environment with them.

Projects:

- Flow Field Simulator
  - P5.js library for visualisations and how to optimize a large program to use the CPU. Including intentional spawn sites, and despawn conditions.
  - I learnt how to implement factory patterns to generate flow lines.
  - I learnt how to display a p5 sketch on Github Pages: https://jeffcct.github.io/ProjectShowcase/
- Maze project
  - I learnt how to construct a grid datatype and construct a visualiser for displaying this in the terminal
  - I learnt how to use search algorithms like DFS, Iterative deepening and A* to generate a maze.
  - I learnt how to use Question Driven Development to not require a tutorial to solve problems myself and construct a program.
  - Saving to a file and OO design to use extension over modification.
- Game Web App
  - I learnt how to work in a team and manage members to ensure we are working efficiently by delegating tasks and recording results to ensure success.
  - Built a data pipeline to convert data from a CSV file to our database, including collated data from description strings and building a database which follows the 3rd normalized form.
  - Use CSS / HTML to design a complex webpage, and use Jinja to create reusable elements and design templates for different web pages including interactive cards to display game information.
  - Use the Flask framework in Python to construct an interactive webpage with rich features like wishlists, reviews and ratings.
  - Learnt how to build a web app to production-ready with a WSGL server and how to use docker to dockerize my web app: http://fred.firepig.net/

Github link: https://github.com/jeffcct