Reilly Browne
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Dear Erika Cramer,

My name is Reilly Browne and I am a junior at Stony Brook University working towards a B.S. in Applied Mathematics and Computer Science, expecting to graduate May of 2023. You reached out to me on Handshake about your Jr. Software Dev Engineer position. I am highly interested in this opportunity because I would be a great fit for this position and addition to the team.

In the posting, I see that you are looking for someone with strong skills in Java programming. I have 13 projects on my Github that are entirely written in Java and have used Java extensively in my coursework here at Stony Brook. I am also experienced in programming as part of a team and staying on schedule with my work at the Stony Brook Theoretical and Experimental Algorithmics Lab, where I have had the opportunity of implementing algorithms for experimental comparison from pseudocode.

In addition to implementing solutions to problems, I have experience developing solutions of my own and conveying them visually. I was recently accepted to present my paper “Collapsing the Hidden-Set Convex-Cover Inequality” at the Computational Geometry Young Researchers Forum in June 2022. In that paper I developed an efficient algorithm for solving a subcase of two NP-hard problems. I believe that these problem solving skills will greatly benefit the team.

With the combination of my theoretical knowledge and practical programming experience, I am confident that I will be a great addition to the team. Thank you for your time and consideration. I look forward to hearing from you soon.

Best regards,
Reilly Browne

Reilly Browne

1-631-379-5997| reilly.browne@stonybrook.edu | https://linkedin.com/in/reilly-browne | https://github.com/Rajalo

WORK AND RESEARCH EXPERIENCE

SBU THEORETICAL AND EXPERIMENTAL ALGORITHMICS LAB

| Academic Research Fellow — C Programming, LaTeX | July 2021 – Present

- Implement parallel algorithms from the PRAM and Binary Forking model in C.
- Develop and analyze parallel algorithms theoretically.

LOVIN OVEN CATERING COMPANY

| Waitstaff | January 2020-January 2022

- Waiting tables, busing, working food stations
- Working as part of a team to coordinate catering of events

EDUCATION

BS. Computer Science/Applied Mathematics and Statistics — Stony Brook, NY | IN PROGRESS (May 2023)

Stony Brook University

Coursework: Finite Mathematical Structures, Computational Geometry, Analysis of Algorithms, Data Analysis, Probability Theory, Applied Algebra, Intro to Theory of Computation, Software Development, Differential Eq. w/ Linear Alg

Teacher Assistant (TA): Computational Geometry

GPA: 3.80

PROJECTS

POINT IN POLYGON DEMONSTRATOR — Java

A program for teaching students how the Kirkpatrick point location method works. It uses the Java Swing Library to provide an interactive GUI for drawing in polygons and testing points.

TSP APPROXIMATION ALGORITHMS IN PYTHON — Python

Implementations of several approximation algorithms for the Travelling Salesperson Problem in Python, with an additional module for visualization using PyPlot library.

GUARDING PROBLEM TOOL — Java

A program which helps students learn about the Art Gallery Problem. The user can input a polygon and then using a set of ”witness” points and a set of ”guard” points, they can determine an optimal solution to the problem.

TRIANGLE INTERSECTION USER INTERFACE — Java

A program for students in the SBU Computational Geometry Class to test an algorithm they had to write for homework. The algorithm has to determine whether two triangles intersect, so the student adds in their code and then can use the GUI to mouse in triangles on the left side of the screen and the result of running their algorithm on the triangles displays on the right side.

PERSONAL WEBSITE — JavaScript, HTML, CSS

A personal website written in HTML, CSS and JS. It features a more extensive list of my projects and side hobbies.

EXTRACURRICULARS

STONY BROOK CYBERSECURITY CLUB

| Public Relations Officer | May 2021 – Present

STONY BROOK GAME DEVELOPERS

| General Committee Representative | May 2021 – Present

SKILLS

Languages: Java,C, C++, Python, R, Latex, OCaml, MIPS, Google Apps Script **Web Development:** React, JavaScript, HTML/CSS
Technologies/Software: VSCode, Eclipse, IntelliJ IDEA, Ipe,Github, Figma, Sketchup, Gimp, Canva, Sony Vegas Pro, OBS