

# Alec Bellinghausen Pagliarussi

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## OBJECTIVE

Computer Programmer Analyst student with proven strong problem solving, data structures, object-oriented programming, database design, software development skills and experience with modern tech stacks seeking a position as Software Developer after graduation.

## HIGHLIGHTS OF QUALIFICATIONS

- Proactive, inventive, flexible, teamwork-oriented with strong communication and cooperation skills.
- Worked as Tutor and Teacher Assistant at George Brown College for all courses that belong to the Computer Programmer Analyst program.
- Participated in the IEEEExtreme (Competitive Programming Competition) and ranked 11th in Canada and among the top 12% in the world.
- Multilingual: Portuguese (Native language), Fluent in English, basic Spanish and German.
- Familiar with the AWS environment.

## TECHNICAL SKILLS

- Distinct Object-Oriented Programming, Data Structures and algorithm design skills.
- Fluent in JavaScript, Typescript, Java, Python, C# and C++ programming languages.
- Knowledge of database design and implementation, and SQL query optimization.
- Comfortable with Agile Scrum methodologies.
- Experience with React, NodeJs server technologies, GraphQL, REST API design, MySQL, PostgreSQL, MongoDB, Spring Framework, Docker and Tensorflow 2.
- Proficient with Git version control system.
- Familiar with data preprocessing techniques (data collection, cleaning, integration and transformation) and common Machine Learning algorithms, such as CNN, RNN and Clustering methods.

## EXPERIENCE

### Tutor and Teacher Assistant

January 2019 - August 2020 and February 2021 - Present

George Brown College, Toronto, Ontario, Canada

- Totalized more than 850 hours of work, helping students to succeed in their program by providing one-to-one tutoring sessions on the following topics: HTML, CSS, Javascript, C#, Python, Java, C++, PHP, MySQL, Math, CCNA, Data Structures and Algorithms.
- Assist lab instructors during their classes.
- Plan and run in-class tutoring sessions as additional classes that students can attend to reinforce their understanding of the weekly content.

### Software Engineer

April 2020 - Present

Working Women Community Center, Toronto, Ontario, Canada

- Project in partnership with the Working Women Community Center's to develop a web application capable of managing their tutoring program.
- The project scope consists of a complex and large data collection process, scheduling, reports/statistics, among other tools tailored specifically for the client's needs.
- Tech stack: Typescript, React, NodeJs, GraphQL and PostgreSQL.

## **Software Engineer**

August 2020 - January 2021

George Brown College Research and Innovation Department, Toronto, Ontario, Canada

- A contract-based opportunity between George Brown College and a Canadian company, *Java Group Programs*, where I worked in a small team to engineer and develop a web application from zero to production.
- The application scope included CRUD operations for many entities, system scheduled tasks, real-time communication through web sockets, authentication and detailed and customizable authorization levels.
- Tech stack: React, NodeJs, GraphQL, MongoDB, Redis and Twilio API.
- Ensured seamless and integral data collection that would later be consumed by University's researches.

## **3D Printing and Custom Services Shop Owner**

January 2016 - January 2018

3DreamStore, Santos, São Paulo, Brazil

- Direct contact with customers offering personalized service and dealing with sales.
- 3D printing services on demand.
- 3D prototyping for specific needs and situations.

## **Extracurricular Teacher**

January 2015 - January 2018

Jean Piaget College, Santos, São Paulo, Brazil

- Three years of experience in teaching students from kindergarten to high school at Jean Piaget (São Paulo, Brazil), the main fields I worked on were:
  - Basic to advanced robotics: Robotics basics, microcontroller, Raspberry Pi, design and build circuits.
  - Programming skills: Problem-solving; C++, Python and OpenCV framework.
  - Game development: Game design basics, Game Maker, Unreal Engine 4 and Blender.
- Led students to achieve outstanding results, winning many robotics tournaments and awards.
- Designed, planned, implemented and managed the School Makerspace, a dedicated environment for students to work on any project that they wanted.
- Developed applications in Python for the humanoid robot NAO from Aldebaran Robotics using the NAOqi API.
- Part of the school Educational Technology Department - Research, development and planning of special classes through the use of new technologies that could allow students to have a better understanding of the class, by making it more interesting and interactive.

## **EDUCATION HISTORY**

### **Diploma Computer Programmer Analyst**

2018 – April 2021

George Brown College, Toronto ON Canada

- Received *Computer Tech. Departmental Award*, for academic performance and engagement in the college community.
- Designed and implemented a system for community centers across Canada to help them manage their free of charge tutoring programs. This was a Capstone project developed during two semesters, where my group and I experienced the full software development lifecycle process.
- Created a CRUD application using PHP framework CodeIgniter and MySQL.
- Created and designed a Chess Club Member Manager application using JavaFX.
- Flight Booking Manager application using C# windows forms.
- Project planning of an insurance company's system by applying Agile Scrum methodologies.
- Part of the student representative council, working closely with the college faculty to improve the course.

## **VOLUNTEERING**

### **Volunteer Work in Environmental Project**

January 2013 - December 2014

Santos, São Paulo, Brazil

- Survey of statistics.
- Actions to raise public awareness about the environmental condition of beaches in Santos city.
- Reforestation in many different areas.
- Production and distribution of organic fertilizer from food leftovers generated by the school's canteen.
- Actions in conjunction with public schools to build community gardens.

## **AWARDS AND CERTIFICATIONS**

### **Competitions and Tournaments**

- Ranked among the top 12% global and 11th place in Canada in the IEEEExtreme 2020 edition (Competitive Programming Competition).
- Ranked among the top 18% global and 20th place in Canada in the IEEEExtreme 2019 edition (Competitive Programming Competition).
- State champion and top 3 in many different robotics competitions.
- Innovation Award 2013 - Brazilian Robotics Competition.
- 5th place in the Humanoids Race at LARC 2013 (Latin America Robotics Competition)
- First place in the Fifth Cultural and Scientific Forum of Jean Piaget, presenting a project on Solar Energy.
- Bronze Medal (National) - International Mathematics without Borders Olympiad.
- Quanta 2014 in India representing Brazil for Math, Chemistry, Physics, Debate, Electronics and Logical Reasoning - Certificate of Participation.

## **PERSONAL PROJECTS**

- React-Messenger - A messaging app inspired by Slack made with React and SemanticUI deployed with Firebase. (<https://messenger.alecpagliarussi.me>)
- Simple CRUD application made with Spring Boot, React and Material-UI. (<https://github.com/AlecBp/react-spring-simple-crud>)
- Weather Forecast App - A React app that utilizes the OpenWeather API to fetch weather forecast data of any city. (<https://weatherapp.alecpagliarussi.me>)
- Dog Breed Classifier - A Machine Learning powered app that classifies dog breeds based on pictures. Made with React, Flask and Tensorflow 2 and deployed on AWS using Amplify, EC2 and Application Load Balancer. (<https://dogbreed.alecpagliarussi.me>)
- A tool to manage members of a fictional chess club. Coded in Java using JavaFX. (<https://github.com/AlecBp/ChessClubMemberManager>)
- Notetaker app using Express, Handlebars, Passport, MongoDB and Bootstrap.