MIKHAIL BOGDANOV

New grad applicant - Grad Date: June 2026

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TECHNICAL SKILLS

languages:
C++
C
Java
Python
Dart
TypeScript

frameworks/API:
OpenGL
Flutter
Firebase
Spring boot
React

others:
Photoshop
Adobe Illustrator
Premier Pro
Visual Studio
Linux

EDUCATION

Combined Honors:
COMPUTER SCIENCE & PHYSICS
University of British Columbia
Grad Date: June 2026

Robotics Club
Shawnigan Lake School

REFERENCES

Available Upon Request

PROFILE

As a Fourth-year honors student pursuing a combined degree in Computer Science and Physics, I am actively seeking a full time position, remote or in person which would let me apply my theoretical knowledge with practical experience in order to develop the beginning of my career. I have a deep seeded passion for writing high speed, scalable algorithms which I showcase in my work and personal projects. IIn addition, my interests extend to physics simulation, meshing and UI design, as reflected in my creation of a game engine, chess engine and mobile applications.

WORK EXPERIENCE:

ANSYS (now Synopsis) meshing intern Jan 2025- Aug 2025
(C++, QT, Python, Visual studio)
- implemented algorithms to efficiently translate meshes from the public Ansys electronics formats such as ngmesh and G3D to an internal research structure.
- Helped develop an internal meshing application (Prime) to better represent the required file formats.
- Improved efficiency by allowing users to choose which sections of the model they want imported, reducing the number of elements that had to be transferred and rendered on the GPU.

Research under Carl Ollivier-Gooch UBC sept 2025- april 2026
(C++, Eclipse, Linux)
- Working on researching high speed algorithms for edge generation and detection of 3D surface meshes

Software development for PARSEC sept 2025- april 2026
(C++, QT, OpenGL)
- Created software for a student run non profit, space technologies company to send and receive data from a microcontroller hardware and display it in a 3D view port.

PERSONAL PROJECT WORK

2D Mesher June 2025- current
(C++, OpenGL, Visual studio)
- Constrained 2D mesher from scratch
- Profiled my application to demonstrate the real world near linear performance.
- Github **link**

3D PHYSICS ENGINE, C++, openGL October 2023- march 2024
(C++, OpenGL, Visual studio)
- Implemented a unique rendering and physics engine based on the book "*Physics Engine Development*", by Ian Millington
- Customized the engine using shaders to render in the terminal for a unique art style
- Successfully applied solid collision detection, contact point generation, impulse generation, and friction in the engine
- Code and demonstration for my physics engine can be found on my GitHub **here**

CHESS ENGINE Java, react, spring boot May 2023 - September 2023
(C++, Java, TypeScript, Spring boot, React)
- Successfully developed a 1200 rated chess engine in C++
- Translated the chess bot to JAVA for a second-year Computer Science course, incorporating multithreading
- created a react app with the ability to view previous and current games
- Github **link**

Social media app May 2015 - August 2017
(Dart, Flutter, Firebase)
- **Social Media app** created as a personal project to help me improve front and back end app development skills