

Omar Kamal

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PROFILE

Driven with a profound fascination with the intricacies of materials science and interconnection with software engineering. A solid education foundation from hands-on experience with projects regarding material characterization and processing techniques. With the ability of integrating software development, I can contribute cutting-edge solutions in the materials engineering domain.

EDUCATION

University of Alberta

BSc in Materials Engineering

2017 – 2023

Edmonton, AB

TECHNICAL SKILLS

Materials Science: Foundational Biomaterials Knowledge; Materials Selection; Materials Characterization; Processing Techniques; Porosity Measurement Methods;

Programming Languages: MATLAB, JavaScript/TypeScript, Go, C#, Rust, Python, HTML/CSS

Technical Skills: Computational Materials Science; Optimization Techniques; Data processing; Materials Science Data Analysis; Materials Modeling; ThermoCalc

Languages: Fluent in English and Urdu/Hindi; basic proficiency in German and Punjabi.

EXPERIENCE

Corsace

General Organizer + Lead Developer

2015 – Present

Edmonton, AB

- Communicated with a large scale team, and **improved organizational efficiency**, resulting in **2x event frequency** and **10-20x viewers** for livestreams.
- Created and **maintained large scale infrastructure and services** to automate work processes and enhance team productivity.
- Innovated solutions for novel problems, consistently improving project quality and outreach every year.
- Communicated effectively with stakeholders to ensure top-of-the-line service delivery.

Shifa Medical Clinic

Technical Assistant

2014 – 2017

Edmonton, AB

- Maintained and organized the patient record database, ensuring **100% PIPEDA protocol compliance**, and **3x faster patient data retrieval** for doctors.
- Implemented technical solutions to improve operational workflows and data management.
- Managed **fully secured transfer** of patient records to referral clinics, hospitals, and pharmacies.

PROJECTS

Optimizing Binder Jet + Sintering for QT 450-10 Ductile Iron

2023

Red Deer Polytechnic

- Led analysis to measure porosity using image data processing and gas/liquid pycnometers.
- Collaborated with professors and staff to discuss and implement effective characterization methods.
- Communicated with various stakeholders to ensure optimal and timely results.

Process Design for Wear Resistant Excavator Blade Teeth

2022

University of Alberta

- Developed a process design involving Ni-60 wt% Tungsten Carbide and 17-4 PH Stainless Steel.
- Managed project deliverables, performed energy and space requirement analysis, and conducted cost analysis to design a sophisticated 50+ step process.
- Ensured results were accurate and optimal using tools such as ThermoCalc.