

KHA TU (JESSI) NGUYEN

(778) 881-9775 | ngkhatu@student.ubc.ca | Vancouver, BC, Canada

EDUCATION

The University of British Columbia, Vancouver, Canada
Bachelor of Applied Science, Civil Engineering

Expected June, 2025

RELATED EXPERIENCE

Student Field Engineer – Bauer Foundations Canada (BAUER Group)

May, 2022 – December, 2022

Burnaby, BC, Canada

Projects: BC Ferries Tsawwassen Terminal (Phase 2) – Jet Grouting, HQ3 Coring; AbCellera Evans GMP Building – CFA

- Monitor and process plans, specifications, shop drawings, and other submittals, e.g. daily logs and document each day's progress on site, photo log/documentation of the project and on-site daily minutes for the company record
- Assist with report writing; perform inspections, generate SAA survey testing then transfer the survey data of each jet grout location into AutoCAD to map a 2D cut-off wall of overlapping jet grout columns; then develop a 3D mapping method using VBA Automation into 3D AutoCAD to predict column deviations, which increases the accuracy of the process
- Assist the Ground Improvement Specialist and Estimator in preparing column layouts, quantity takeoff and tender/estimate

Design and Analysis Team Member – UBC Steel Bridge

September 2020 – Present

The University of British Columbia

- Implement structural analysis using S-FRAME and AutoCAD to analyze and optimize the preliminary bridge design
- Sketch joint designs to incorporate joint techniques into prototypes to study joint capacity, then put it into fabrication
- Attend consultant design review meeting to receive feedback on improving joint constructability and capability of joints
- Perform calculations in MS Excel to analyze 3 types of forces acting on the bridge members and joints, and case studies from last years and other school's designs

Communications Assistant – Department of Civil Engineering

September 2021 – April, 2022

The University of British Columbia

- Provide input into department's web and social media management strategy, especially as it relates to student audience
- Manage in writing for the website, WordPress content management by basic data analyzation and visualization skills
- Strengthen understanding of topics like voice, content creation and audience, and skills in Adobe design tools

Research Intern (UTSIP Program) – Aichi Laboratory

June, 2021 – July, 2021

The University of Tokyo, Japan.

- Perform testing in the Energy and Environment Laboratory under the supervision of Professor Aichi and a PhD student to identify the key characteristics of parameter sets in land subsidence modeling
- Conduct an inverse analysis using evolutionary algorithm with a regularization term in the test problem and run numerical simulation to evaluate the model simplicity

PROJECTS

Timber Truss Design Term Project

January, 2022 – April, 2022

UBC Civil Engineering

- Design a truss structure and analyzed the structural deformation using hand calculations and S-FRAME software
- Implement Excel functions to collect data, check for failure and helped optimize the truss by S-FRAME analysis
- Work in a team to construct the truss (withstood 3184 N after testing) and prepare 3 lab reports analyzing the design

Conceptual Pedestrian Overpass Design

September, 2021 – December, 2021

UBC Civil Engineering

- Design a pedestrian overpass on Binning Road and West 16th Avenue, UBC Vancouver, B.C., with a team of six members
- Prepare all necessary documentation consisting of a Request for Proposal (RFP), draft sketches, summary and final report deliverables and conducted stakeholder engagement presentations, all within the span of 4 months
- Perform risk analysis by studying the likelihood and severity of hazards and determining mitigation techniques based on risk tolerances

Energy Recovery Clothes (EneRec) Dryer

May, 2021 – July, 2021

UBC Vantage College – Structural Team Member / <https://wiki.ubc.ca/Course:VANT151/2021/Capstone/APSC/Team2>

- Collaborate with 12 teammates to build a scaled-down prototype of an energy recovery clothes dryer with compact hangers
- Model and design prototype the outside structure and external components using Solidworks
- Win Best Project Award at the 2021 Capstone Conference at the end of school year of 2020-2021

ACHIEVEMENTS

LEED Green Associate Certification of Participation

2022

Capstone Conference – Best Project Award APSC

2021

UBC Vantage College Entrance Award

2020

SKILLS / ABILITIES

Skills: AutoCAD, S-FRAME, Solidworks, Microsoft Office, Bluebeam REVU, WordPress, Technical Writing