

## Professional Experience

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- Mauka Energy Inc & Mauka Forestry Inc**, Corvallis, Oregon & Vancouver, BC August 2023 - present  
**CTO, CFO, Founder**
- Geospatial mapping services and technology development for electric vehicles
- Oregon State University, Faculty of Forestry**, Corvallis, Oregon September 2021 - present  
**Sessional lecturer**
- Forest Operations and policy issues
- Graduate Teaching assistant**
- Forest Road System management
  - Linear, Nonlinear & Dynamic programming
  - Logging Mechanics
  - Harvesting operations
- SBS Forestry Inc, Takla Nation**, Prince George, BC June 2022 – September 2022  
**Senior Forester and project manager assistant**
- Forest harvest planning and project management
  - Managed helicopter & float plane layout projects
- UBC Alex Fraser Research Forest, Faculty of Forestry**, Williams Lake, BC August 2018 – January 2021  
**Assistant Operations Supervisor**
- Supervised forest harvesting operations, planning, and layout design
  - Managed the AFRF GIS database and assisted with network & IT support
- UBC Malcolm Knapp Research Forest, Faculty of Forestry**, Maple Ridge, BC April 2018 – August 2018  
**Research Assistant**
- Performed field work, research assistance and fire patrols
- University of British Columbia, Faculty of Forestry**, Vancouver, BC September 2017 – April 2019  
**Graduate and Undergraduate Teaching Assistant**
- Spring field school (graduate & undergraduate TA)
  - Forest surveying & road development (graduate & undergraduate TA)
  - Introduction to forestry (graduate TA)
  - Forest economics (graduate TA)
  - Forest harvesting systems & operations (undergraduate TA)
  - Computer applications in forestry (undergraduate TA)
- Pioneer Forest Consultants Ltd., Layout Division**, Golden, BC May 2017 – August 2017  
**Forest Engineer**
- Engineered Interior cable & ground-based cut blocks and roads
- Chartwell Consultants Ltd., Forestry Division**, North Vancouver, BC May 2016 – December 2016  
**Junior Forest Engineer**
- Engineered coastal cable cut block layout and road layout
- West Fraser, Woodlands Division**, Quesnel, BC May 2015 – August 2015  
**Forest Technician**
- Engineered interior ground-based cut blocks and road layout
- Cariboo Forest Consultants**, Quesnel, BC May 2014 – August 2014  
**Forest Technician**
- Cut block layout and road layout, silviculture plots & timber cruising
- May 2013 – August 2013

## Education

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**OREGON STATE UNIVERSITY (OSU)**, Faculty of Forestry, Corvallis, OR 2021 - present  
PHD student in Forest Engineering & Sustainable Forest Management

**UNIVERSITY OF BRITISH COLUMBIA (UBC)**, Faculty of Forestry, Vancouver, BC  
Masters of Geomatics and Environmental Management Graduation Date: 2019  
Bachelor of Science in forestry: forestry resource management, major (Co-op) Graduation Date: 2018

## Patents & Publications

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**Battery-hybrid Electric Vehicle Energy Routing Tool (BEVER) – Sole Inventor** April 2024  
**United States Patent Application Number 18/651520**

The BEVER tool and methodology arose out of research by David Hamilton at OSU. In 2024, OSU prepared and filed a USA non-provisional patent application (18/651520) to secure the core technology.

**Forestry Electric Vehicle Energy Routing Tool (FEVER) – Sole Inventor** July 2023  
**United States Patent Application Number 18/349569**

The FEVER tool and methodology arose out of research by David Hamilton at OSU. In 2023, OSU prepared and filed a USA non-provisional patent application (18/349,569) to secure the core technology.

**International Journal of Forest Engineering**, Open Access, peer-reviewed, **first author** Accepted  
Submitted November 2023, Accepted April 2024

- A Forestry Electric Vehicle Energy Routing and Mapping GIS Tool

**Croatian Journal of Forest Engineering**, Open Access, peer-reviewed, **third author** Accepted  
• Breakeven Analysis Considering Ultra-Fast Charging Stations at Mills for Battery-Electric Log Trucks.

**PLOS ONE**, Open Access, peer-reviewed, **second author** Published September 14, 2022  
• [Combining aerial photos and LiDAR data to detect canopy cover change in urban forests.](#)

**ABC FP**, Professional Forester Magazine Publication, **first author** Published June 17, 2020  
• [Alex Fraser Research Forest interior Douglas-fir beetle 2020 update](#)

## Certification and Training

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2023 OSU Advantage Accelerator  
2022 Forestry Field Safety Training with Jim Kiser  
2021 OSU Van Safety Training  
2016 First Aid level 1 (updated 2022)  
2015 S-100A basic fire suppression and safety certification  
2010 Valid class 5 BC driver's license

## Volunteer Experience and Extra- Curricular Activities

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**OSU Forestry Graduate Student Council**, Corvallis, OR  
**Social Chair** September 2021 – present

**Forestry Undergraduate Society**, Vancouver, BC  
**Canadian Institute of Forestry - Student Liaison** February 2017 – April 2018

**OSU Logger Sports**, Corvallis, Oregon 2021 - present  
**UBC Logger Sports**, Vancouver, British Columbia 2017 – 2019