



## Shelby Corning

**Nationality:** American | **Gender:** Female | **Email address:** [corning@iiasa.ac.at](mailto:corning@iiasa.ac.at)

### WORK EXPERIENCE

07/11/2022 – CURRENT Laxenburg, Austria

#### RESEARCHER INTERNATIONAL INSTITUTE OF APPLIED SYSTEMS ANALYSIS

- Improve and expand use of existing IIASA models, such as novel variable inclusion and alternative model applications.
- General data support for ongoing projects: data collection, management, quality assurance, and analysis.
- Write and edit journal articles, reports, and other publications highlighting IIASA projects and research.
- Support the coordination and management of project work to ensure timely completion.
- Perform research on:
  - fire modeling and prediction in the EU and worldwide;
  - machine learning methods in forest disturbances; and
  - applications of cloud computing

01/06/2021 – 06/11/2022 Laxenburg, Austria

#### GUEST RESEARCH ASSISTANT INTERNATIONAL INSTITUTE OF APPLIED SYSTEMS ANALYSIS

- Investigated the use of cloud computing and satellite imagery in disturbance detection and landscape scale interactions.
- Developed a research project to map historic wildfires in Rocky Mountain National Park, USA using Google Earth Engine (GEE).
  - Tested thresholding for change detection in pixels in GEE.
  - Calculated and compared change detection accuracy for own method against GEE LandTrendR.
- Aided in a successful grant application for improving fire risk modelling in Austria.
  - Instrumental in brainstorming project idea.
  - Helped establish goals and aims of project as well as work division between partners.
- Promoted inclusive and interactive work community through involvement in various clubs offered by IIASA.

29/07/2020 – 30/09/2020 Breckenridge, United States

#### OPEN SPACE TECHNICIAN TOWN OF BRECKENRIDGE

- Performed necessary trail maintenance and updates for 5+ miles of trail utilizing hand and mechanical tools.
- Provided fire and hazard tree mitigation to improve safety of parks and trails.
- Engaged with public in volunteer events to promote community activism and sustainability.
- Monitored public usage of trail and suggested reroutes and alterations to foster a more sustainable trail system.

09/2017 – 04/2020 Keystone, United States

#### SKI PATROL VAIL RESORTS

Winter seasonal position: October 2017--April 2018, October 2018--April 2019, October 2019--March 2020

- Professionally and compassionately provided emergency medical response.
- Responsibly assessed safety of terrain and enforced resort rules and regulations.
- Promoted a fun, safe environment for guests and staff.
- Delivered exceptional guest service, including answering questions, customer outreach, conflict resolution, and guest de-escalation.
- Proficient in multitasking, scene assessment, prioritization, and scene management.

04/2017 – 12/2019 Golden, United States

#### NATURAL RESOURCES TECHNICIAN JEFFERSON COUNTY OPEN SPACE

Summer seasonal position: May - Nov 2017, April - Dec 2018, April - Nov 2019

- Helped plan and write forest management/fire mitigation plan for in several parks of over 240 ha, including block delineation, sensitive area buffers, and stand surveys.
- Implemented plans through mechanical operations (utilizing chainsaw, masticator, and skidder).
- Aided in the implementation and troubleshooting of a new vegetation inventorying technique.
- Collected over 2,000 ha/season of vegetation coverage and forest inventory.
- Participated in and led diverse range of wildlife monitoring projects to collect data on species types, abundance, and diversity, for wildlife including owls, raptors, and small mammals.
- Managed and maintained variety of monitoring equipment (cameras, acoustic monitors)
- Efficiently processed and analyzed data for use in management plans.
- Utilized a variety of techniques to key unknown plant and animal species.
- Mechanically and chemically managed invasive species.
- Gained proficiency in sampling and inventorying techniques, forest and wildlife management, ecosystem health measurements, and data management.
- Performed variety of administrative duties such as data entry, database management, visitor outreach, GIS mapping.

05/2014 – 08/2016 Golden, United States

### **TRAIL STEWARDSHIP TEAM CREW LEADER** JEFFERSON COUNTY OPEN SPACE

---

Summer seasonal position: June--August, 2014-16

- Supervised and trained crews of 8-10 youth in trail maintenance and construction.
- Created and presented outdoor education material encouraging environmental stewardship, critical thinking, and community involvement.
- Completed daily, weekly, and seasonal reviews of workers and work completed.
- Ensured adherence to safety policies and procedures.
- Engaged and managed volunteer trail and special project work.

## ● **EDUCATION AND TRAINING**

---

08/2013 – 05/2017 Rochester, United States

### **BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCES** University of Rochester

---

Major in environmental sciences with a focus on geomechanics and forestry. Relevant courses include: *Geo hazards and their Mitigation; Environmental Geochemistry; Sustainable Systems; Hydrology and Water Resources; and Environmental and Applied Geophysics*

**Address** 500 Joseph C. Wilson Blvd., Rochester, United States | **Website** <https://www.rochester.edu> |

**Field of study** Forestry | **Final grade** Cum laude

07/2015 – 12/2015 Freiburg, Germany

### **SEMESTER ABROAD** Albert-Ludwigs Universität

---

*Ecology and Management of Forest Landscapes in Southwest Germany and the Swiss Alps; Impact Sustainability; Ecosystem Management; and GIS (ArcMap)*

**Address** Freiburg, Germany | **Field of study** Forestry | **Final grade** A

02/2017 – CURRENT United States

### **EMERGENCY MEDICAL TECHNICIAN-BASIC** National Registry of Emergency Medical Technicians

---

**Address** United States | **Website** [nremt.org](http://nremt.org)

07/2020 – 05/2021 Joensuu, Finland

### **MSC EUROPEAN FORESTRY - DEGREE CERTIFICATE** University of Eastern Finland

---

European Forestry with a focus on forest inventory and modeling

**Address** Joensuu, Finland | **Field of study** Forestry

Mountain Forestry with a focus on wildfires, natural hazards, remote sensing, and machine learning

**Address** Vienna, Austria | **Field of study** Forestry

## ● **LANGUAGE SKILLS**

---

Mother tongue(s): **ENGLISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>GERMAN</b>	B2	B2	B2	B2	B2

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● **DIGITAL SKILLS**

---

Organizational and planning skills | Good listener and communicator | Written and Verbal skills | Decision-making | Team-work oriented

### **Microsoft**

Microsoft Office | Google Docs | Power Point | Basic knowledge of Google Earth Engine (GEE) | Microsoft Powerpoint | Instagram | Microsoft Word | Google Drive

### **GIS and Coding**

ArcGIS QGIS | R/R Studio | Basics of Python | Basics of Machine Learning | Microsoft Excel