

Preview of the
manuscript

*Backpacking in
the Digital Age*

The background of the cover is a photograph of a serene natural setting. In the center, a small, rustic wooden cabin with a gabled roof sits on a calm body of water. The cabin's reflection is clearly visible in the still water. The shoreline is densely packed with tall, dark green evergreen trees that frame the cabin. The sky above is filled with soft, white clouds, with some blue visible between them. The overall mood is peaceful and remote.

Backpacking in the Digital Age

Joseph Zhang

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Free technologies which will further the planning and
enjoyment of your next backpacking trip.

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About the Author



Joseph Zhang is an avid long-distance hiker from the Bay Area. As a Boy Scout since the sixth grade, he goes on regular camping and biking trips with his troop and friends. He first became fascinated with backpacking after he led a week-long backpacking trip in Yosemite's backcountry with a group of other scouts. Throughout the week of breathtaking views of the Sierras, he became motivated to streamline his pack weight to walk further with less fatigue and risk of injury. Since that trip, he has hiked on several local long-distance trails, including the John Muir Trail. He wishes to share the knowledge he picked up over the years about using technology to further the planning and enjoyments of trips.

Joseph has always been driven to help introduce technology to traditionally isolated demographics. He cofounded the nonprofit organization The Human Tech Project to further impact underprivileged children and the elderly in local communities through technology education. He has organized technology courses used across the world and is currently working with Assisting Children in Need to raise funds for computer resource centers in developing countries. He has witnessed technology's potential to bring immense efficiency and convenience to everyday life at a low cost.

Outside of backpacking, he enjoys exploring competitive programming, website design, and computer security. He conducts research in memory forensics and malware analysis, intending to specialize in this field. Beyond academics, he likes running cross-country and playing music with his chamber orchestra. After graduation, he strives to thru-hike the Pacific Crest Trail. Joseph can be contacted through his email at josephzhang999@gmail.com.

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Introduction

As we progress through the Digital Age, technology's rapid adoption brings unparalleled convenience to all aspects of life. Humans have access to an abundance of information, making education accessible by virtually anyone. Exploring activities and hobbies that were once obscure is now easier than ever as more and more people are joining and learning from online backpacking communities. Smartphones are now ubiquitous because these light, powerful devices possess high quality cameras, location tracking capabilities, and ample memories for numerous documents and pictures. Their ample battery lives make them perfect assistance on the trail. As there is a growing market for outdoor applications, I will present what I have learned about using these technologies to facilitate my trips. For each software recommended, I provide an introduction and a fundamental guide to get started. I made sure that all the technologies in this book are free, promoting the principle that just like technology, the outdoors should be accessible by all.

This eBook is broken down into three major parts. The first part presents technologies to facilitate the preparation for a trip, including resources used to organize gear which can also help in terms of mental preparation and streamlining your pack weight. It also contains navigation tools used to devise a route and calculate statistics, such as distance and elevation. The second section includes applications that are used while out on the trail, such as mobile maps and the highly informative but optional applications used to educate yourself about the outdoors. Finally, I cover advanced settings to minimize battery drain since I notice a lot of hikers pack unnecessarily bulky power banks to supply minimal phone use.

To explain more effectively and precisely, I include example screenshots labeled as figures enumerated with a chapter and sequence number for easy reference. Also, I try to detail some other common alternatives since I understand that people have different preferences. If you are open to spending a bit of money, I list some highly recommended software along with the costs. My personal advice is taken from my own tests out in the field, but feel free to contact me as I am always open to comments from people with more experience in using these free applications.

Despite all of its benefits, we should not solely depend on technology as it is never a replacement of knowledge and sufficient preparation. As the Boy Scout motto, *Be Prepared* suggests that all hikers must bring the ten essentials, notably including a paper map and a compass. One simply cannot rely on a phone for navigation since damage or battery depletion are common possibilities. Also, a phone is never a reliable source of communication to home, so always tell your friends and family where you will hike and when you plan on returning. Along with preparing your gear before your hike, please equip yourself with knowledge about staying safe and conducting yourself ethically in the outdoors.