Genetic Engineering Smita Rastogi

GRIFFIN TIANA

Food and Pharmaceutical Applications Springer Nature
Sentiment analysis and opinion mining is the field of study that analyzes people's opinions, sentiments, evaluations, attitudes, and emotions from written language. It is one of the most active research areas in natural language processing and is also widely studied in data mining, Web mining, and text mining. In fact, this research has spread outside of computer science to the management sciences and social sciences due to its importance to business and society as a whole. The growing importance of sentiment analysis coincides with the growth of social media such as reviews, forum discussions, blogs, micro-blogs, Twitter, and social networks. For the first time in human history, we now have a huge volume of opinionated data recorded in digital form for analysis.Sentiment analysis systems are being applied in almost every business and social domain because opinions are central to almost all human activities and are key influencers of our behaviors. Our beliefs and perceptions of reality, and the choices we make, are largely conditioned on how others see and evaluate the world. For this reason, when we need to make a decision we often seek out the opinions of others. This is true not only for individuals but also for organizations.This book is a comprehensive introductory and survey text. It covers all important topics and the latest developments in the field with over 400 references. It is suitable for students, researchers and practitioners who are interested in social media analysis in general and sentiment analysis in particular. Lecturers can readily use it in class for courses on natural language processing, social media analysis, text mining, and data mining. Lecture slides are also available online.Table of Contents: Preface / Sentiment Analysis: A Fascinating Problem / The Problem of Sentiment Analysis / Document Sentiment Classification / Sentence Subjectivity and Sentiment Classification / Aspect-Based Sentiment Analysis / Sentiment Lexicon Generation / Opinion Summarization / Analysis of Comparative Opinions / Opinion Search and Retrieval / Opinion Spam Detection / Quality of Reviews / Concluding Remarks / Bibliography / Author Biography
Proceedings of SoCTA 2019 Springer
This book includes high-quality research papers presented at the Fourth International Conference on Innovative Computing and Communication (ICICC 2021), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on February 20–21, 2021. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.
Mobile Information Systems Springer Nature
A concise handbook on exome sequencing for clinicians and clinical geneticists.
Applied Genetics of Leguminosae Biotechnology Springer
Microbial or biological degradation has long been the subject of active concern, and the rapid expansion and growing sophistication of various industries in the last century has significantly increased the volume and complexity of toxic residues of wastes. These can be remediated by plants

and microbes, either natural origin or adapted for a specific purpose, in a process known as bioremediation. The interest in microbial biodegradation of pollutants has intensified in recent years in an attempt to find sustainable ways to clean contaminated environments. These bioremediation and biotransformation methods take advantage of the tremendous microbial catabolic diversity to degrade, transform or accumulate a variety of compounds, such as hydrocarbons, polychlorinated biphenyls, polaromatic hydrocarbons pharmaceutical substances, radionuclides and metals. Unlike conventional methods, bioremediation does not physically disturb the site. This book describes the basic principles of biodegradation and shows how these principles are related to bioremediation. Authored by leading, international environmental microbiologists, it discusses topics such as aerobic biodegradation, microbial degradation of pollutants, and microbial community dynamics. It provides valuable insights into how biodegration processes work and can be utilised for pollution abatement, and as such appeals to researchers and postgraduate students as well as experts in the field of bioremediation.

Plant and Human Health, Volume 2 "O'Reilly Media, Inc."

Published by Sinauer Associates, an imprint of Oxford University Press.

An Oral History of Haden's Syndrome Infobase Publishing

Fungi are eukaryotic microorganisms that include both unicellular and multicellular species. They have a worldwide distribution and a wide range of applications in diverse sectors, from environmental, food and medicine to biotechnological innovations. Fungal biochemical genetics involves the study of the relationships between genome, proteome and metabolome, and the underlying molecular processes in both native and bioengineered fungi. This book provides a valuable resource on the challenges and potential of fungal biotechnology and related bioengineering and functional diversity for various industrial applications in the food, environmental, bioenergy and biorefining, and the biopharma sectors. In comparison to previous and related publications in the area of applied myco-biotech-engineering, this book bridges a knowledge gap in the areas related to prospects and investment as well as intellectual and technical issues. This book also provides information on recent commercial and economic interests in the area by juxtaposing the developments achieved in recent worldwide research and its many challenges.

Applications of Bioinformatics in Rice Research Springer Science & Business Media

Genetic Engineering is the deliberate manipulation of an organism s genetic makeup to achieve a planned and desired result. Genetic engineering techniques provide pure DNA in amounts sufficient for mapping, sequencing, and direct structural analyses. Fur

Synthetic Biology in the Lab Genetic Engineering

Biotechnology, a promising and sophisticated science of the twenty-first century, has also been at the centre of controversies, with its varied applications and commercial uses raising legal concerns. The book discusses the latest developments and applications of biotechnology in the modern world. It is a comprehensive study of various legal issues pertinent to biotechnology, including but not limited to intellectual property, trade policy, environmental concerns, biodiversity issues, regulatorymatters, and human rights connections. In addition to providing a global perspective to these concerns, covering the subject from the standpoints of the US, Europe, and India, the book also provides insights into the regulatory canopy on biotechnology in India.

Proceedings of the International e-Conference on Intelligent Systems and Signal Processing Cambridge University Press

New discoveries in biotechnology are often touted as the answer to many contemporary problems. Genetic engineering, animal cloning, and reproductive technologies are promoted as the keys to a brighter future, while genetic engineers promise more productive agriculture, medical miracles, and solutions to environmental problems. But increasing numbers of farmers, scientists, and concerned citizens disagree. There is growing evidence that genetically engineered foods are hazardous to our health and to the environment. Farmers all over the world are encountering an increasingly monopolized seed and agrichemical industry. Animal cloning and human genetic engineering raise troubling ethical questions and genes from plants, animals, and humans have become objects to be bought, sold, and patented by private interests. Worldwide resistance to genetic engineering and other biotechnologies has brought these issues to the forefront of public controversy. Contributors include Beth Burrows (Edmonds Institute), Mitchel Cohen (freelance writer and activist, US), Martha Crouch (formerly of Indiana University), Marcy Darnovsky (Sonoma State University), Michael Dorsey (environmental justice activist), Steve Emmott (Green delegation to the European Parliament), Alix Fano (Campaign for Responsible Transplantation, NY), Jennifer Ferrara (freelance writer, CA), Chaia Heller (Institute for Social Ecology, VT), David King (GenEthics News, UK), Jack Kloppenburg (University of Wisconsin), Orin Langelle (Native Forest Network), Zoë C. Meleo-Erwin (activist and researcher, PA), Barbara Katz Rothman (City University of New York), Sonja Schmitz (doctoral candidate, University of Vermont), Thomas G. Schweiger (Greenpeace International), Sarah Sexton (The Corner House, UK), Robin Seydel (La Montañita Food Co-op, NM), Hope Shand (Rural Advancement Foundation International, Canada), Lucy Sharratt (Sierra Club of Canada), Vandana Shiva (Research Foundation for Science, Technology and Ecology, India), Ricarda Steinbrecher (Econexus, UK), Victoria Tauli-Corpuz (Tebtebba Foundation, Philippines), Jim Thomas (Greenpeace UK), Brian Tokar, Kimberly Wilson (Greenpeace USA).

The Worldwide Challenge to Genetic Engineering Springer Nature

The abundance of organic pollutants found in wastewater affect urban surface waters. Traditional wastewater management technologies focus on the removal of suspended solids, nutrients and bacteria, however, new pollutants such as synthetic or naturally occurring chemicals are often not monitored in the environment despite having the potential to enter the environment and cause adverse ecological and human health effects. Collectively referred to as "emerging contaminants," they are mostly derived from domestic activities and occur in trace concentrations ranging from pico to micrograms per liter. Environmental contaminants are resistant to conventional wastewater treatment processes and most of them remain unaffected, causing contamination of receiving water. This in turn leads to the need for advanced wastewater treatment processes capable of removing environmental contaminants to ensure safe fresh water sources. This book provides an up-to-date overview of the current bioremediation strategies, including their limitations, challenges and their potential application to remove environmental pollutants. It also introduces the latest trends and advances in environmental bioremediation, and presents the state-of-the-art in biological and chemical wastewater treatment processes. As such, it will appeal to researchers and policy-makers, as well as undergraduate and graduate environmental sciences students.

Red Beet Biotechnology Tor.com

Biotechnology is a rapidly growing research area which is immediately translated into industrial applications. Although over 1000 research papers have emerged on various aspects of red beet and the chemistry of betalaines pigments, surprisingly no comprehensive book is available. The proposed Red Beet book encompasses a scholarly compilation of recent biotechnological research developments made in basic science, biochemistry of the chief components, technological developments in augmenting and recovery of such useful compounds and value-added products with discussions on future perspectives. The book will provide detailed information of the chemistry of the main components of normal and genetically engineered beetroot.

New Frontiers in Stress Management for Durable Agriculture Page Publishing Inc

Designed to serve as a textbook for students of biotechnology, life sciences, genetics, microbiology, biochemistry, and other related areas.

An Introduction to Genetic Engineering Springer

Explains why biotechnology is a relevant and volatile issues. Begins with a history of biotechnology and its effect on agriculture, medicine, and the environment. Equal space is devoted to discussing the efforts of human-rights advocates, animal-rights advocates, and environmentalists to create definitive governmental regulations for this budding industry.

Struggles of Unsung Scientists Who Enlightened the World Springer Nature

The author presents a basic introduction to the world of genetic engineering. Copyright © Libri GmbH. All rights reserved.

Phytochemistry and Molecular Aspects Morgan & Claypool Publishers

Biotechnology Is At The Heart Of Technology Revolution In Asia Today With Immense Potential In The Pharmaceutical And Agriculture Sectors. This Study Covers Economic And Policy Issues And The Experiences In Biotechnology In Japan, India, Malaysia, The Phillipines, Korea, Bangladesh, Thailand, China And Singapore And Also The International Cooperative Strategies Of Asean And In Europe. This Book Is A Valuable Resource For Governments, Multilateral Institutions, Academics And Practitioners In The Field Of Economic Development And Technology Policy Management.

Exome Sequence Analysis and Interpretation Springer Nature

This book provides insights into the Third International Conference on Intelligent Systems and Signal Processing (eISSP 2020) held By Electronics & Communication Engineering Department of G H Patel College of Engineering & Technology, Gujarat, India, during 28–30 December 2020. The book comprises contributions by the research scholars and academicians covering the topics in signal processing and communication engineering, applied electronics and emerging technologies, Internet of Things (IoT), robotics, machine learning, deep learning and artificial intelligence. The main emphasis of the book is on dissemination of information, experience and research results on the current topics of interest through in-depth discussions and contribution of researchers from all over world. The book is useful for research community, academicians, industrialists and postgraduate students across the globe.

Odysseys in the Pursuit of Enlightenment Springer Science & Business Media

This new guide provides information on all aspects of setting up and using fermentation units in academic and industrial laboratories. The volume emphasizes the interdisciplinary nature of fermentation and the wide range of uses of small scale fermenters. It includes coverage of fermentation modeling, sterilization, and instrumentation, and will be of equal value to those involved with industry and scientific research.

Nanomaterials and Environmental Biotechnology Univ of California Press

One of our most influential anthropologists reevaluates her long and illustrious career by returning to her roots—and the roots of life as we know it When Elizabeth Marshall Thomas first arrived in Africa to live among the Kalahari San, or bushmen, it was 1950, she was nineteen years old, and these last surviving hunter-gatherers were living as humans had lived for 15,000 centuries. Thomas wound up writing about their world in a seminal work, The Harmless People (1959). It has never gone out of print. Back then, this was uncharted territory and little was known about our human origins. Today, our beginnings are better understood. And after a lifetime of interest in the bushmen, Thomas has come to see that their lifestyle reveals great, hidden truths about human evolution. As she displayed in her bestseller, The Hidden Life of Dogs, Thomas has a rare gift for giving voice to the voices we don't usually listen to, and helps us see the path that we have taken in our human journey. In The Old Way, she shows how the skills and customs of the hunter-gatherer share much in common with the survival tactics of our animal predecessors. And since it is "knowledge, not objects, that endure" over time, Thomas vividly brings us to see how linked we are to our origins in the animal kingdom. The Old Way is a rare and remarkable achievement, sure to stir up controversy, and worthy of celebration.

Principles of Genetic Engineering MDPI

Early anthropological evidence for plant use as medicine is 60,000 years old as reported from the Neanderthal grave in Iraq. The importance of plants as medicine is further supported by archeological evidence from Asia and the Middle East. Today, around 1.4 billion people in South Asia alone have no access to modern health care, and rely instead on traditional medicine to alleviate various symptoms. On a global basis, approximately 50 to 80 thousand plant species are used either natively or as pharmaceutical derivatives for life-threatening conditions that include diabetes, hypertension and cancers. As the demand for plant-based medicine rises, there is an unmet need to investigate the quality, safety and efficacy of these herbals by the “scientific methods”. Current research on drug discovery from medicinal plants involves a multifaceted approach combining botanical, phytochemical, analytical, and molecular techniques. For instance, high throughput robotic screens have been developed by industry; it is now possible to carry out 50,000 tests per day in the search for compounds which act on a key enzyme or a subset of receptors. This and other bioassays thus offer hope that one may eventually identify compounds for treating a variety of diseases or conditions. However, drug development from natural products is not without its problems. Frequent challenges encountered include the procurement of raw materials, the selection and implementation of appropriate high-throughput bioassays, and the scaling-up of preparative procedures. Research scientists should therefore arm themselves with the right tools and knowledge in order to harness the vast potentials of plant-based therapeutics. The main objective of Plant and Human Health is to serve as a comprehensive guide for this endeavor. Volume 1 highlights how humans from specific areas or cultures use indigenous plants. Despite technological developments, herbal drugs still occupy a preferential place in a majority of the population in the third world and have slowly taken

roots as alternative medicine in the West. The integration of modern science with traditional uses of herbal drugs is important for our understanding of this ethnobotanical relationship. Volume 2 deals with the phytochemical and molecular characterization of herbal medicine. Specifically, It will focus on the secondary metabolic compounds which afford protection against diseases. Lastly, Volume 3 focuses on the physiological mechanisms by which the active ingredients of medicinal plants serve to improve human health. Together this three-volume collection intends to bridge the gap for herbalists, traditional and modern medical practitioners, and students and researchers in botany and horticulture.

Infrastructure and Design for Adaptivity and Flexibility McGill-Queen's Press - MQUP

Using accessible farming practices to meet the growing demands on agriculture is likely to result in more intense competition for natural resources, increased greenhouse gas emissions, and further deforestation and land degradation, which will in turn produce additional stress in the soil-water-plant-animal continuum. Stress refers to any unfavorable force or condition that inhibits customary functioning in plants. Concurrent manifestations of different stresses (biotic and abiotic) are very frequent in the environment of plants, which consequently reduces yield. Better understanding stress not only changes our perspective on the current environment, but can also bring a wealth of benefits, like improving sustainable agriculture and human beings' living standards. Innovative systems are called for that protect and enhance the natural resource base, while increasing productivity via 'holistic' approaches, such as agroecology, agro-forestry, climate-smart agriculture and conservation agriculture, which also incorporate indigenous and traditional knowledge. The book 'New Frontiers in Stress Management for Durable Agriculture' details the current state of knowledge and highlights scientific advances concerning novel aspects of plant biology research on stress, biotic and abiotic stress responses, as well as emergent amelioration and reclamation technologies to restore normal functioning in agroecology.