

Jake Rudolph

jake.rudolph@gmail.com | +1.205.960.8314 | 1403 Cole Mill Road Durham, North Carolina 27705

WORK EXPERIENCE

BASETRACE MAY 2012 — PRESENT
Co-Founder, Board Member : Durham, North Carolina
Chief Executive Officer December 2105 – Present
Chief Technology Officer May 2012 – December 2015
Principal Investigator on BaseTrace DNA tracer product development.
Raised \$500k in the form of grants, loans, awards, and equity investment.
Brought company to Beta Customer revenue.
Managed key relationships with investors, advisory board, and potential customers, including Duke Energy, Schlumberger, Exxon Mobil, Dominion Resources, Entergy and Devon Energy.
Oversaw and managed laboratory staff, including candidate selection and interview process.
Designed, managed, and maintained biotechnology and materials science laboratory.

CONSERVATORS CENTER SEPTEMBER 2010 — PRESENT
Staff-level Volunteer : Burlington, North Carolina
Tour guide, handling and socialization lead with canids, education and technology committee member.
Burroughs-Wellcome SSEP Grant “Wildlife Studies: Critical Carnivores” instructor and grant co-author.

THE TRUST FOR PUBLIC LAND JUNE — SEPTEMBER 2011
Federal Affairs Climate Conservation Intern : Washington, District of Columbia
Comprehensive analysis of climate adaptation opportunities in New England’s Northern Forest and Mississippi’s Alluvial Valley.

DUKE UNIVERSITY SEPTEMBER 2010 — MAY 2011
Research Assistant : Durham, North Carolina
Analysis of Biodiversity Conservation, Resource Economics, and Livelihoods in Uganda.

UNITED STATES BUREAU OF THE CENSUS APRIL — JULY 2010
Census Crew Leader : Washington, District of Columbia
Trained and supervised census field enumerators.
Conducted daily meetings, coordinated field efforts, and managed logistics and payroll for field enumerators.

WORLD WILDLIFE FUND MAY — OCTOBER 2009
Conservation Science Intern : Washington, District of Columbia
Consultation for Conservation Science Program Team on freshwater ecology and United States water policy.
Responsible for the design and analysis of freshwater management surveys for protected area managers.

ALABAMA RIVERS ALLIANCE DECEMBER 2008 — MAY 2009
Program Assistant : Birmingham, Alabama
Monitored state environmental and energy policy.
Coordinated public response to stimulus package Green infrastructure Revolving Funds.
Participated as organizational stakeholder in Joint Legislative Committee on Water Policy and Management in Alabama State Legislature.

PATENTS

Nucleic acid-based authentication and identification codes, US Patent 9,428,792

PENDING APPLICATIONS

Systems, methods, and a kit for determining the presence of fluids, US Application 20140031538A1
Systems, methods, and a kit for determining the presence of fluids associated with a hydrocarbon reservoir in hydraulic fracturing, US Application 20160290983A1
Systems, methods, and a kit for determining the presence of fluids of interest, PCT Application WO/2014/005031

EDUCATION

MASTER OF ENVIRONMENTAL MANAGEMENT Durham, North Carolina
Nicholas School of the Environment, Duke University, 2012
MASTER’S PROJECT A Time Series Regression Analysis of Future Climate

THESIS

BACHELOR OF ARTS: BIOLOGY AND PSYCHOLOGY Great Barrington, Massachusetts
Bard College at Simon’s Rock, 2008
Conservation and the Kenyan Landscape: People, Policy, and Culture (received with honors)

PUBLICATIONS "Protected areas and freshwater conservation: A survey of protected area managers in the Tennessee and Cumberland River Basins, USA" (Journal of Environmental Management, October 2012)
"Patterns of Change in Post-Conflict Tropical Forests: Evidence from Northern Uganda" (working paper)
"Tuvalu: An Assessment of Vulnerability & Development," Islands First Brief to UNFCCC, December 2011
"US Climate Action Network: Durban Climate Negotiations Briefing Book," 2011. Authored sections on Adaptation, Technology Transfer, and Domestic Policy

PRESENTATIONS Electric Power Research Institute Groundwater Workshops 2016, 2015, & 2014
Savannah River National Laboratory and Savannah River Ecological Laboratory 2015
Society of Petroleum Engineers Tracer Technology Conference, Dubai, UAE 2014
Duke University Nicholas School of the Environment Board of Visitors 2014
Department of Energy Megawatt Ventures Competition 2013
NCIDEA Award Presentation 2013
American Association of Petroleum Geologists Presentation 2013

Masters Project Presentation, Duke University 2012
Mock UN Climate Change Negotiation, Yale University, Participant: Turkey 2010
Project Presentation to World Wildlife Fund Conservation Science Department 2009
College Environmental Forum at Alabama Rivers Alliance Conference 2009
Research Presentation to Maasai Community Stakeholders in Oloitokitok, Kenya 2007

QUALIFICATIONS Limited Working Proficiency in Mandarin and French; Familiar With Japanese and Swahili
Working Statutory Knowledge of NEPA, ESA, CAA, CWA, RCRA, and CERCLA
Fedex Hazardous Waste Management And Hazmat Shipping Certification
Grant Writing

Biotechnology Assay Development Using qPCR, UV-Vis Spec, Mass Balance, Hydrogeology, Scale-Model Engineering, Multivariate Statistics
Laboratory and Field Experience With GIS, Including ArcGIS 10, and Grass Geospatial Tools
Proficient In Microsoft Office 2016 and R
Familiar With LaTeX, Html, UNIX, AppleScript, and JavaScript

Financial Modeling and Projections
Market Research

Media Relations and Press Communications

FIELD EXPERIENCE **MAINLAND CHINA AND HONG KONG** **JULY — AUGUST 2008**
Broad spectrum analysis of Chinese indigeneity and conservation practice as part of the Sacred Landscapes and Nature Conservation in China and the Tibetan Borderlands: Trekking, Research, and Service-Learning course.

SOUTHERN AND CENTRAL KENYA **JANUARY — MAY 2007**
Curricula in wildlife management, environmental policy, wildlife ecology, and Swahili, culminating in directed research on wildlife distribution and population development near national park systems.