

KIDANE ARAYA

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Experience

Paradigm

2007-Present

Woking, U.K.

Senior Depth Imaging Specialist at Paradigm Geo, Europe, Africa and the Middle East Office in Woking, the UK. Involved on analysis and QC of **2D/3D Land** and **Marine seismic** data from Europe, Africa the Middle East. Main objective Interval Velocity model building leading to Prestack Depth Migration. Calibrate and merge seismic data with available well log information. Present results to management and clients. Supervision of junior team members.

SensorWise Inc.

2001-2007

Houston, TX

Scientist at SensorWise Inc. Involved in designing, and coding algorithms for borehole acoustics. Inversion of velocities using interface waves in boreholes for both real time and post processing applications. Processed wave sonic and seismic data collected while drilling. Developed receiver balancing algorithms for wave sonic data. Processed wave sonic data from different wells around the world. Conducted detailed investigation of dispersion estimation from hard and soft formations in a borehole.

RICE UNIVERSITY

1999-2001

Houston, TX

Research Scientist at the Department of Earth Sciences. Involved in High Resolution Seismic Data Acquisition and Processing, Code Development & Evaluation. Conducting velocity analysis and pre stack Depth Imaging using **GeoDepth** and **ProMAX** software.

PGS TENSOR

1998-1999

Houston, TX

Senior Research Geophysicist at the 3D Depth Imaging Group. Testing and evaluating 3D Depth migration algorithms. Processed 3D Data from the over thrust belt in the Rockies, 16-component land vertical cable data from a synthetic model representing the Gullfaks field in the North Sea, treating the first layer as rock. Used the Marathon Salt Model and other proprietary models to evaluate 3D **travel time** Computation by Ray Tracing, **eikonal** solvers and **wave front** expansion methods. Conducted quality control study of 3D Land seismic data from Oklahoma and Texas.

RICE UNIVERSITY

1995-1998

Houston, TX

Research Scientist at The Rice Inversion Project of the Department of computational and Applied Mathematics. Involved in code development and seismic data processing using **ProMAX**, **Seismic Unix** and The Rice Inversion Project soft wares. Main focus **Depth Imaging** and **AVO** analysis.

COLORADO SCHOOL of MINES **1993-1994**
Golden, CO

Research Associate at the Department of Geophysics. Involved in elastic wave studies by Asymptotic and Generalized Ray methods.

EXXON PRODUCTION RESEARCH COMPANY **5/1992-9/1992**
Houston, TX **5/1991 9/1991**

Research Assistant. Developed visco-elastic wave modeling and migration/inversion algorithms. Applied inversion theory in seismic data from the Gulf of Mexico.

MOBIL RESEARCH LABORATORY **5/1990-9/1990**
Dallas, TX

Research assistant I. Developed 3-D time migration techniques. Process 3-D marine data from the Gulf of Mexico using this code.

NATIONAL OIL & GAS EXPLORATION PROJECT **1982-1983**
Dire Dawa, Ethiopia

Jr. Geophysicist - Assisted with geophysical well logging with the Soviet Petroleum Exploration Expedition in Ethiopia in the Ogaden Basin. Responsible for field data acquisition, processing and preliminary interpretation.

ETHIOPIAN INSTITUTE OF GEOLOGICAL SURVEY **1979-1982**
Addis Ababa, Ethiopia

Geophysicist - Responsible for conducting geophysical data acquisition electrical, gravity and magnetics. Directed and supervised field party which conducted seven ground water and two engineering geophysical investigations.

ADDIS ABABA UNIVERSITY **1978-1979**
Bahr-Dar Ethiopia

Graduate Assistant - Taught Level 1 and Level 2 Physics courses. Directed physics laboratory classes also.

ADDIS ABABA UNIVERSITY **1977-1978**
Addis Ababa, Ethiopia

Lab instructor - Directed laboratory classes for Level 1 and Level 2 Physics courses.

Education

COLORADO SCHOOL OF MINES **Ph.D. Geophysics** **12/1993**
Golden, CO **M.Sc. Geophysics** **5/1986**

Doctorate thesis: Comparison of Asymptotic and Generalized Ray Analysis of Horizontally Polarized Shear Waves Advisor: **Dr. F. A. Hadsell**. Masters thesis: Seismic investigation of the Southern Red Sea. Advisor: Prof. **R. L. Sengbush**.

Publications

Blanch, J. O., Araya, K., Varsamis, G. L., Cheng, A. C. H. 2004, Receiver Balancing in Off-Centered Acoustic Logging Data, Offshore Technology Conference 2005.

Blanch, J. O., Cheng, A. C. H., Varsamis, G. L. and Araya, K., 2004, Modeling of, and considerations in, cross-well and VSP (pre-) survey design, 74th Ann. Internat. Mtg.: Soc. of Expl. Geophys., 2505-2508.

Araya, K., Blanch, J., Cheng, A. and Varsamis, G., 2003, Evaluation of dispersion estimation methods for borehole acoustic data, 73rd Ann. Internat. Mtg.: Soc. of Expl. Geophys., 305-308.

Araya, K. and Symes, W. W., 1998, Acoustic asymptotic inversion and AVO, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 189-192.

Araya, K. and Symes, W. W., 1996, 2D and 2.5D Kirchhoff inversion using upwind finite difference amplitudes, 66th Ann. Internat. Mtg: Soc. of Expl. Geophys., 503-506.

Araya, K. and Hadsell, F. A., 1993, Comparison of asymptotic and generalized ray analysis of horizontally polarized shear waves, 63rd Ann. Internat. Mtg: Soc. of Expl. Geophys., 913-915.

Araya, K. and Bleistein, N., 1990, Prestack inversion of common-offset strike data, 60th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1211-1214.

Araya, K. and Bleistein, N., 1989, True amplitude ray tracing for seismic lines along the strike of cylindrical structures, 59th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1099-1101.

Personal

Active Member of SEG. Experienced with **C, C++, FORTRAN, UNIX, MATLAB** and **Windows**. Holds **US Green Card**.

References Available upon request

September 2008