

J. MICHAEL BATTALIO

Vicksburg MS, 39180
michael[at]battalio[dot]com

Mississippi State, MS 39762-4690
jmb451[at]msstate[dot]edu

Updated January 20, 2012

EXPERIENCE

Teaching Assistant. Mississippi State University Department of Geosciences, Starkville, MS. Fall 2010 – present.

- Substitute teacher for Atmospheric Dynamics I & II
- TA for Forecasting Severe Local Storms class (GR 4842/6842)
- TA for Principles of GIS (GR 4303/6303)
- Give quizzes and maintain grades/attendance for Introduction to Geography (GR 1123)

Lab Assistant. Department of Education, Teacher Academy for the Natural Sciences. 2010-2011.

- Plan and teach daily labs for Middle School Teachers
- Program and administer TANS website

Teaching Assistant. Mississippi State University Department of Physics, Starkville, MS. Spring 2010.

- Teach Physical Science Lab
- Assign grades, write final and midterm examinations

Research Assistant. Engineer Research and Development Center, Environmental Lab, Vicksburg, MS. Summers 2004 – 2010; winters 2005-2009.

- Analyzing bat migration and climate data for military installations in Mississippi
- Assist development of Recruitment CD for Recreation Group
- Knowledge with Microsoft Office applications including: Word, Access, Excell, Frontpage, Publisher, Live Meeting, Powerpoint
- Clerical/secretarial work- typing speed: 70 wpm
- Analyzing climate, stream flow, and pollution data for Ft. Benning reclamation project
- Stereoscopic analysis of landforms and areas of industrial waste

Web Designer/Programmer. Self-employed. 2005-present

- Design and generate content for various individual and business websites
- proficient in HTML, Javascript, CSS, Python
- limited ability in C++, C, PHP, Fortran

PUBLICATIONS

- “*Quantitative Analysis and 3D Visualization of NWP Data Using Quasi-Geostrophic Equations*” 28th Conference on Interactive Information Processing Systems American Meteorological Society Annual Meeting, New Orleans, LA, Jan 2012.
- “*Visualization of Vorticity and Divergence in Three Dimensions*” National Weather Association Conference, Birmingham, AL Oct. 2011.
- “*Improved Vorticity Visualization*” Poster at 9th Annual Graduate Symposium, Mississippi State University, 2011.

GRE score: 1340

EDUCATION

Graduate

Master of Science in Meteorology. Mississippi State University, Starkville, MS, Spring 2012. GPA: 4.0

Coursework: Tropical Meteorology, Research Methods, Intro to Probability, Visualization and Geoscience Data, Forecasting Severe Local Storms, Geologic Literature, Advanced Hazards and Disasters, Incompressible Viscous Laminar Flow, Methods of Theoretical Physics, Computational Physics

Thesis topic: Three-Dimensional Analysis of NWP Model Fields using a Quasi-Geostrophic System of Equations to Enhance Model Diagnostics

Fellowships/Assistantships: American Meteorological Society 21st Century Fellowship, Mississippi State Geosciences Assistantship, Mississippi State Department of Bands Assistantship

Undergraduate

Bachelor of Science in Physics with minor in Mathematics. Mississippi State University, Starkville, MS. Spring 2010. GPA: 3.97/4.0.

Bachelor of Science in Meteorology with minor in Communication. Mississippi State University, Starkville, MS. Spring 2009. GPA: 4.0/4.0.

Coursework:

Meteorology: Applied Climatology, Weather Analysis I-II, Weather Forecasting I-II, Satellite and Radar Meteorology, Synoptic Meteorology, Physical Meteorology, Dynamic Meteorology I-II, Statistical Climatology, Mesoscale Meteorology, Geowriting, Computer Applications in Atmospheric Dynamics, Research in Applied Climatology, Research Methods in Meteorology, World Geography, Physical Geography, Water Resources, Planetary Geology

Mathematics: Calculus I-IV, Linear Algebra, Differential Equations I-II, Foundations of Geometry

Physics: Physics I-III, Descriptive Astronomy, Modern Physics, Chemistry I-II, Intermediate Mechanics I, Nuclear and Particle Physics Electromagnetic Fields I, Quantum Mechanics I-II, Optics, Intermediate Lab, Circuits for Scientists, Programming in C, Introduction to Logic

Communication: Public Speaking, Intro to Theatre, Voice and Articulation, TV Production, Advanced TV Production, Mass Media, Broadcast Performance, Practicum in Broadcast Meteorology I-IV

Music: Music Theory I-II, Ear Training I-II, History and Appreciation of Music, Piano I-VI, Cello I-VI, Concert Band (6 years), Marching Band (7 years), Orchestra (4 semesters).

Scholarships: National Science Foundation S-STEM fellow, George Kappler Endowed Scholarship, Gulmon Memorial Scholarship, Frank L. Culley Memorial Scholarship, Anthony Cozzani Memorial Scholarship, Walton Family Foundation Scholarship, Society of American Military Engineers Scholarship, Presidential Freedom Scholarship, MSU Academic Scholarship, Band Scholarship, Mississippi Eminent Scholars Grant, Mississippi Resident Tuition Assistance Grant, ConocoPhillips Chemical Engineering Scholarship, Civitan Speech Scholarship

Awards: Mississippi State University Society of Scholars, President's List 2004-2011, Finalist McGraw-Hill MSU Speech Competition, Phi Kappa Phi Honor Society

Activities: Society of Physics Students, National Weather Association East MS Chapter Webmaster, Catholic Student Association Webmaster, Reveille Yearbook Webmaster, Mississippi State Piano and Guitar Studio Recital, American Meteorological Society, National Weather Association

Interests: Chess, gardening, physics, astronomy, meteorology, music, drawing, painting, investing

MUSIC EXPERIENCE

Minor in Music Mississippi State University, Starkville, MS. Spring 2010. GPA: 3.97/4.0.

Small Ensembles:

Music Coordinator and Choir Director. Immaculate Conception Catholic Church. West Point, MS
March, 2011-present

- Direct and lead choir
- Select appropriate music for each service
- Pianist/Organist

Graduate Assistant. Mississippi State University Bands. Starkville, MS Fall 2010-2012

Musician, assistant director. St. Joseph's Catholic Church. 5:30 Mass choir Starkville, MS Fall 2004-present.

- Pianist
- Cellist

Musician. St. Joseph's Catholic Church. 11:30 Mass choir Starkville, MS Fall 2004-present.

- Substitute pianist
- Cellist

Musician, assistant director. St. Michael's Catholic Church. 8:30 Mass choir Vicksburg, MS Fall 2002-present.

- Composer and arranger
- Substitute Pianist
- Saxophonist
- Cellist

Musician, assistant director. St. Michael's Catholic Church. 11:00 Mass choir Vicksburg, MS Fall 2003-present.

- Substitute pianist

Musician. Self-employed. 2002-present

- Musician for various venues (weddings, receptions, dinners, religious services, award ceremonies, etc.)
- Music Coordinator and director

Larger Ensembles:

Famous Maroon Band (Mississippi State Band). Starkville, MS Fall 2004 present.

Marching Band

- conducting graduate assistant (2010-2012)
- Drum Major for three years (2008-2010)
- saxophonist for three years (2004-2007)

Symphonic/Concert Band

- principal saxophonist for six years (2005-2010)
- narrator

Mississippi State Symphony Orchestra. Starkville, MS Spring 2010-present.

- principal cellist

HISTORY of TRAINING

Piano Lessons: 1996-2004, Dr. Clarrisa Behr Davis (Vicksburg, MS).

2005-2010, Dr. Jackie Edwards-Henry (Starkville, MS).

Cello Lessons: 2007-present, Ms. Simona Barbu (Starkville, MS).