

JONATHAN MACK

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DEGREES/CERTIFICATIONS

- MS Computer Science
- BS Aerospace Engineering
- FAA Airline Transport Pilot-Helicopter
- FAA Certificated Flight Instructor/Certificated Flight Instructor-Instrument, Helicopter
- FAA Private Pilot, Airplane Single Engine Land

WORK EXPERIENCE

EMS Helicopter Pilot 1/09 - Present

Transported sick and/or injured patients from accident scenes or outlying hospitals to major hospitals. In 2009, designed and populated a normalized, base-customizable, and comprehensive database of the 200+ HealthNet Aeromedical Services helicopter landing zones, used by all eight HealthNet bases. From 2010-2012, acted as the HealthNet Safety Committee pilot representative. Starting in 2010, designed, implemented, and maintained a spreadsheet, in use at multiple bases, that determines helicopter crewmember night vision goggle currency. In 2014, acted as an observer for Air Methods' 2014 Line Operations Safety Audit.

Air Methods Corporation

Various Locations

Web Developer/Software Engineer/Database Administrator 7/07 - Present

Designed, implemented, and maintained multiple standards-compliant websites using HTML, CSS, PHP, MySQL, and JavaScript. Designed, implemented, and maintained multiple spreadsheets and databases using Microsoft Excel and Access.

Various clients

Various Locations

CS101 Content Developer 8/08 - 12/08

Designed and edited websites and homework/exam projects for use in West Virginia University's Introduction to Computer Applications class, which combined instruction in critical thinking skills and Microsoft Office applications (Word, PowerPoint, Excel, and Access).

West Virginia University

Morgantown, WV

Software Engineering Intern 5/08 - 8/08

Designed and implemented a configurable database manipulation application using agile test-driven development methods for a large corporate client. Applied Java, Oracle Database Express Edition, dom4j, JUnit, and log4j technologies during implementation.

Strictly Business Computer Systems

Huntington, WV

Graduate Research Assistant 1/07 - 12/07

Assisted a WVU Computer Science faculty member in research and report composition in a NASA-funded research project investigating software validation of spacecraft real-time operating systems.

West Virginia University

Morgantown, WV

Math/Physics/Chemistry Tutor 8/96 - 5/97

Tutored students, one-on-one and in groups, in college-level math (through differential equations), physics (through calculus-based sophomore-level electromagnetism and optics), and chemistry (through second-semester freshman-level general chemistry).

University of North Dakota Learning Center

Grand Forks, ND

CS101 Instructor 1/06 - 12/06, 1/08 - 5/08
 Developed lessons, graded homework and exams, and instructed students in multiple sections of West Virginia University's Introduction to Computer Applications class, which combined instruction in critical thinking skills and Microsoft Office applications (Word, PowerPoint, Excel, and Access).
West Virginia University Morgantown, WV

Private Tutor 4/05 - 11/10
 Sole proprietor of a company that tutored students one-on-one in high school- and college-level math (through differential equations), physics (through calculus-based sophomore-level electromagnetism and optics), and chemistry (through second-semester freshman-level general chemistry).
Various Clients Various Locations

Helicopter Tour Pilot 3/05 - 10/05
 Piloted a tour aircraft over the Grand Canyon, additionally acting as a supplemental tour guide to the recorded narration, to tourists from around the world, in multiple languages.
Grand Canyon Helicopters Grand Canyon, AZ

Learning Coach (Math/Physics/Chemistry) 9/04 - 12/05
 Tutored students, one-on-one and in groups, in college-level math (through differential equations), physics (through calculus-based sophomore-level electromagnetism and optics), and chemistry (through second-semester freshman-level general chemistry).
Estrella Mountain Community College Avondale, AZ

EMS Helicopter Pilot 8/03 - 2/05
 Transported sick and/or injured patients from accident scenes or outlying hospitals to major hospitals.
PHI, Inc. Phoenix, AZ

Offshore Support Pilot 8/01 - 7/03
 Transported workers and equipment between land bases and offshore oil platforms in the Gulf of Mexico.
PHI, Inc. Various Locations

Helicopter Pilot/Flight Instructor 8/00 - 7/01
 Acted as a traffic watch pilot over a large metropolitan area, and a powerline patrol pilot over both transmission and distribution lines. Conducted helicopter flight and ground training.
J.R. Aviation Sellersburg, IN

Helicopter Pilot/Flight Instructor 7/00 - 8/00
 Acted as a drug interdiction pilot under contract with Ohio law enforcement. Conducted helicopter flight and ground training.
All Star Helicopters Vandalia, OH

Helicopter Flight Instructor 5/00 - 7/00
 Conducted ground and flight training for national and international helicopter pilot students.
Volar Helicopter Training Ft. Lauderdale, FL

Aeronautical Engineer 9/98 - 5/00
 Worked in the areas of certification, design, flight test, and weight & balance to optimize existing helicopter designs (the R22 and R44), and was involved in the earliest phases of designing a new helicopter (the R66).
Robinson Helicopter Company Torrance, CA

Math/Physics/Chemistry Tutor

8/96 - 5/97

Tutored students, one-on-one and in groups, in college-level math (through differential equations), physics (through calculus-based sophomore-level electromagnetism and optics), and chemistry (through second-semester freshman-level general chemistry).

University of North Dakota Learning Center

Grand Forks, ND

Math/Physics/Chemistry Tutor

8/94 - 5/96, 8/97 - 5/98

Tutored students one-on-one in college-level math (through differential equations), physics (through calculus-based sophomore-level electromagnetism and optics), and chemistry (through second-semester freshman-level general chemistry).

West Virginia University Learning Center

Morgantown, WV

Math Workshop Tutor/Assistant

8/93 - 5/94

Assisted in grading quizzes and exams, and tutored students, in the university's pre-college algebra course.

West Virginia University Department of Mathematics

Morgantown, WV

EDUCATION**Master of Science Computer Science**

1/06 - 12/08

3.72 GPA. Problem Report: Test-driven development of a performance-critical database record-tree balancing application.

West Virginia University

Morgantown, WV

Commercial Aviation/Mathematics Major

8/96 - 5/97

3.40 GPA

University of North Dakota

Grand Forks, ND

Bachelor of Science Aerospace Engineering

8/93 - 5/96, 8/97 - 5/98

3.45 GPA, graduated cum laude

West Virginia University

Morgantown, WV

AVIATION FLIGHT HOURS

| Totals | | By operation type | | By model | |
|-----------------------------|------|----------------------|------|----------|------|
| Total | 3643 | Mountain | 1304 | EC145 | 15 |
| Helicopter | 3522 | Cross-Country | 1248 | EC135 | 608 |
| Helicopter PIC | 3454 | Night | 528 | EC130 | 462 |
| Helicopter Turbine | 2041 | NVG | 301 | AS350 | 382 |
| Airplane Single Engine Land | 120 | Instrument-Simulated | 97 | B206 | 567 |
| | | Instrument-Actual | 3 | R44 | 54 |
| | | | | R22 | 1427 |
| | | | | Other | 128 |

PROGRAMMING APPLICATIONS/LANGUAGES/SPECIFICATIONS

C, CSS, Fortran 77, HTML, Java (dom4j, JUnit, log4j), JavaScript, Microsoft Office (Word, Excel, PowerPoint, Access), MySQL, Oracle Database, PHP, Ubuntu Linux, UML, Windows XP/Vista/7/8

Keywords: 135, ASEL, ATP, Airbus, BS, Bell, CFI, CFI-I, CS, Cessna, College, Degree, MS, Piper.