

Benjamin M. Harki, M.S.

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PROFESSIONAL SUMMARY

Experienced programmer, mathematician, and educator who seeks to apply problem-solving, mathematics, and teamwork ability

EDUCATION

DePaul University, Chicago, IL

2021 - Present

- Master's Student, Computer Science
- August 2023 (Anticipated Graduation)

West Virginia University, Morgantown, WV

- Master of Science in Mathematics
- Bachelor of Science in Mathematics, Minor in History

Additional Coursework as a Non-Degree Seeking Student

- University of Illinois at Chicago: Differential Equations PhD level course
- West Virginia University: PhD level courses focused on Mathematical Analysis and Partial Differential Equations

COMPUTER SCIENCE SKILLS

- C, C++, Rust for Systems solutions
- Python, Java, C#, F#, for SE solutions
- Procedural, OOP, Functional, Symbolic, and Safe System Programming Paradigms
- Microsoft Cross-Platform App Development with .NET, .NET MAUI, C# and XAML
- Software Engineering Team methodologies of DevOps, Agile, CI/CD
- Unit Testing with JUnit, Python unittest, Unity Test, Visual Studio Test Tools
- Software Engineering Architectures of Model View View-Model, Model View Controller, Model View Adapter
- Powershell, Batch, Bash to automate compilation file system management
- Data Structures and Design Patterns
- Concurrency and Parallel Execution
- Simple Blockchain, Multithreaded Server, Cache, and Malloc programs
- Unity for Game Programming with Unity Cloud Build and Mono C#
- Assembly, LLVM bitcode, and Java bytecode
- Unix, Linux Ubuntu, Win10/11
- MATLAB, Scheme, Scala
- XML, XAML, LATEX, JSON markup/object notation
- Clang and LLVM Project for C and C++ compilation and program analysis
- Program Analysis with Control Flow and Pointer Analysis, Mitigating Program Vulnerabilities
- Tooling with LLVM Fuzzing, LLVM KLEE, Valgrind
- Git and Perforce for version control
- Algorithm theory, Numerical Algorithms, and Numerical Analysis
- Differential Equations, Finite Element and Finite Difference Methods
- Genetic Algorithm, Neural Network, Machine Learning AI programs
- Distributed System Solutions and Cloud Computing
- HTML, CSS, and Javascript for Web Programming.
- Web Communication through Berkeley Sockets
- SQL databases, programming, queries, and Database Theory
- Office 365 and Google Applications
- Visual Studio, Visual Studio Code, Eclipse, Emacs, CodeLite, Vim, Nano, Notepad++ (IDEs or Text Editors)

EXPERIENCE IN EDUCATION

Professor in Mathematics

- Instructor for undergraduate math courses for over ten years in multiple locations and modes
- Created syllabi, homeworks, quizzes, and tests using Pearson's MyMathLab, Knewton Alta, Hawkes Learning System, LaTeX, HTML and CSS, Microsoft OneNote and other Microsoft Office 365 Apps
- Student advisor on completing courses for their degree

Coordination of Mathematics Courses and Curriculum Development

- Collaborated with 15+ math faculty to ensure proper course objective scheduling, organization, consistency, and quality of all math courses across all sections
- Very experienced in creating courses, assigning instructors to approximately 30+ sections of courses
- Created and administered face-to-face and online courses utilizing Blackboard and D2L BrightSpace
- Member of faculty senate and curriculum committees in order to work closely with program coordinators and faculty
- Attended a Higher Learning Commission workshop on general education assessment

EMPLOYMENT

DePaul University

2022 - Present

Teaching Assistant in Python Computer Science Lab

Chicago, IL

- Collaborate with multiple professors to administer their course's Python Lab
- Review lab content, field questions from 50+ students in various sections, and grade assignments

Harold Washington College of City Colleges of Chicago

2019 – Present

Adjunct Instructor in Mathematics

Chicago, IL

- Instructor for College Algebra and Trigonometry, face-to-face or remotely
- Attend training sessions for collaboration with DePaul/Harold Washington Faculty on how to best serve the DePaul Harold Washington Academy's academic needs

Pierpont Community and Technical College

2015 – 2019

Coordinator and Assistant Professor in Mathematics

Fairmont, WV

- Develop and adjust curriculum to meet the needs of Pierpont degree programs and accreditation body
- Oversee all mathematics courses/instructors and resolve conflicts
- Instructor for mathematics courses including Applied Mathematics for Industry, Technical Mathematics, College Algebra, Mathematics for Business, and Fundamental Concepts in Mathematics

Adjunct Instructor in Mathematics

Multiple Colleges in Chicago, IL and suburbs

- East-West University, Northwestern College, Prairie State College, Southern New Hampshire University Online

West Virginia High Tech Foundation Consortium

Mathematician Intern/Researcher

Fairmont, WV

- Analyzed, programmed, and presented findings as a member of a research team testing a genetic algorithm that governed the machine vision of an unmanned vehicle for a military project

West Virginia University

Research Assistant and Master's Research Project

Morgantown, WV

- Assisted with development of a flight path coordination algorithm and modified a neural network trained on survey data