Benjamin M. Harki, M.S.

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PROFESSIONAL SUMMARY

Experienced programmer, mathematician, and educator who seeks to apply computer science, mathematics, problem solving, and teamwork ability to a technological solution

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EDUCATION

DePaul University, Chicago, IL   2021 - Present
- Master's Student, Computer Science
- August 2023 (Anticipated Graduation)

West Virginia University, Morgantown, WV   2003 - 201
- 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

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COMPUTER SCIENCE SKILLS

- C, C++, Rust
- Python, Java, C#, F#
- MATLAB numerical programming
- HTML, CSS, and Javascript
- Powershell, Batch, Bash
- 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
- Software Testing with Unit Testing, Coverage, and Mutation Testing
- Unity and Mono C#
- SQL databases, programming, queries, and Database Theory
- Clang and LLVM Project
- Program Analysis with Control Flow and Pointer Analysis, Mitigating Program Vulnerabilities
- Tooling with LLVM Fuzzying, LLVM KLEE, Valgrind
- Git and Perforce
- Algorithm theory, Numerical Analysis, and Theory of Computation
- Differential Equations, Finite Element and Finite Difference Methods
- Genetic Algorithm and Neural Network Machine Learning AI algorithms
- Web Communication through Berkley Sockets
- Visual Studio Tools

EXPERIENCE IN EDUCATION

Professor in Mathematics
- Instructor for undergraduate math courses for over ten years, face-to-face, online and hybrid
- 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 progress towards earning a 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 on their programs
- Attended a Higher Learning Commission workshop on general education assessment

EMPLOYMENT

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
- Attended training sessions for collaboration with DePaul/Harold Washington Faculty on how to best serve the DePaul Harold Washington Academy's academic needs

DePaul University   2022 - 202
Teaching Assistant in Python Computer Science Lab
Chicago, IL
- Collaborated with multiple professors to administer their course's Python CS Lab
- Reviewed lab content, fielded questions from 50+ students in various sections, and graded assignments

Pierpont Community and Technical College   2015 – 201
Coordinator and Assistant Professor in Mathematics
Fairmont, WV
- Developed and adjusted curriculum to meet the needs of Pierpont degree program and accreditation body
- Resolved conflicts with students and instructors
- 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   2012 – 201
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   201
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   2010 - 201
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