

Employment

Software Developer Feb. 2021 - Present	Hexagon PPM , Madison, Alabama <i>CAD Software Company - Math, Geometry & Topology Libraries</i> <ul style="list-style-type: none">• Streamlined repetitive tasks by writing and distributing scripts• Developed tools to enable embedded model attribute debugging• Set up “unstable” team repos for collaborative development• Migrated code from Visual Studio to portable CMake builds• Instigated documentation update from Word to Markdown
Technical Specialist July 2014 - Aug. 2015	D. Nesbitt Associates , Missouri City, Texas <i>Engineering Support Services</i> <ul style="list-style-type: none">• Supported power plant steam blowing & chemical cleaning• Drafted pipe routes, P&IDs, and fabrication diagrams• Designed and managed wastewater membrane R&D system
Blacksmith Mar. 2010 - Feb. 2012	George Ranch Historical Park , Richmond, Texas <ul style="list-style-type: none">• Conducted public forging demonstrations for large groups• Initiated in-house charcoal production, mitigating fuel limits

Education

Math PhD Student Sep. 2018 - COVID19	The University of Houston Passed Prelims - <i>Numerical Analysis, Probability</i> Teaching Assistant - Ran multi-variable calculus recitations Research Assistant - Wrote C++ biochemical simulation libraries SIAM Webmaster - Updated and maintained chapter's website
MS in Mathematics Sep. 2015 - Aug. 2018	The University of Houston-Clear Lake TA - Algebra, RA - Model Predictive Control <i>Finite Elements, Comp. Physics, Electrodynamics</i>
BS in Mathematics Sep. 2012 - May 2014	Houston Baptist University <i>Diff. Geometry, Complex Variables, Real Variables</i>

Skills & Interests

General:	Vim, Regular Expressions, Markdown, Git, Terminals, Linux & Windows
Coding:	C/C++, Python, Scheme, Bash/Batch, Make/CMake, MATLAB, L ^A T _E X
Hobbies:	Cooking, Climbing, T.Tennis, Shop-work, Model Railroads, Radio, Bridge

Publications

Yipeng Yang and Neal Nesbitt. “Concise iterative algorithms on the state feedback form for model predictive control and stability analysis of discrete linear systems”. In: *2017 IEEE Symposium Series on Computational Intelligence* (Honolulu, Hawaii, Nov. 27, 2017). IEEE, 2018, pp. 2130–2133. ISBN: 9781538627259

Neal David Nesbitt. “Fundamentals of axis-symmetric boundary reconstruction for ideal tokamak plasmas: Using toroidal harmonics to match poloidal flux measurements in the surrounding vacuum.” MA thesis. The University of Houston-Clear Lake, 2018. ISBN: 978043841249