linkedin.com/in/dkupsh

Santa Barbara, CA

Dylan Kupsh

dkupshm@gmail.com

(925) 788-1865

Education

University of California, Los Angeles   Expected: June 2028
Doctor of Philosophy: Computer Science

University of California, Santa Barbara   June 2021
Bachelor of Science: Computer Science
Bachelor of Arts: Sociology
Minor – Labor Studies

Undergraduate GPA: 3.85
Honors College, College of Engineering. Dean's List: Fall 2017 – Spring 2021

Experience

Computer Architecture Researcher — *Graduate Student Researcher*
July 2021 – Present
- Worked in the PolyArchitecture Research Group under Prof. Tony Nowatzki.

Computer Architecture Researcher — *Undergraduate Researcher*
September 2018 – Feb 2021
- Learned and Tested Hardware Design Language, PyRTL, providing bug reports and suggesting improvements
- Integrated support within PyRTL for Matrix operations and Neural Network Functionality
- Read multiple academic papers on ongoing improvements within computer architecture and related hardware design languages

Computer Science Tutor — *Undergraduate Worker*
September 2018 – May 2021
- Mentored 300+ computer science students over 5 quarters in undergraduate coursework in C++ and Python
- Held 100+ office hours dedicated to maximizing student understanding and proficiency in course concepts
- Reviewed student lab assignments and examinations providing feedback focused on increasing student engagement

Publications

D. Aboye, **D. Kupsh**, M. Lim, J. Mai, D. Dangwal, D. Mirza, T. Sherwood, "PyRTLMatrix: An Object-Oriented Hardware Design Pattern for Prototyping ML Accelerators," 2019 2nd Workshop on Energy Efficient Machine Learning and Cognitive Computing for Embedded Applications (EMC2), Washington, DC, USA, 2019, pp. 36–40, doi: 10.1109/EMC249363.2019.00015.

Technical Skills

Programming Languages: Python, Javascript, Java, Kotlin, C#, C++
Platforms: Mac OS, Windows, Unix/Linux, Raspberry Pi

Software Packages: Unity, Microsoft Word, Microsoft Excel, Github, Photoshop, Blender (3D Modeling), PyTorch, React

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Community Involvement

Campus Unit Chair, UAW 2865 — *Elected Official*
April 2018 – April 2021
- Bargained with the University of California, Office of the President over the working conditions during the COVID-19 pandemic of over 19,000 student-workers
- Led several orientation sessions, with 100+ students in attendance, educating student-workers on workplace-rights and union involvement
- Organize and conduct trainings with Academic Student Employees on organizing conversations and contractual rights

USLAC Co-Founder — *Labor Organizer*
May 2018 – June 2021
- Lobbied Associated Student Government Policy, achieving a 20% minimum wage increase for 300+ Student Workers
- Organized and recruited students for several educational conferences on labor organizing and campus developments
- Led several meetings with University Chancellor and other University Administration regarding AFSCME 3299 contractual negotiations and workplace grievances
- Organized coalitionary student movements surrounding university investments, immigrant rights, and worker rights
- Canvass local areas for political candidates and propositions

Relevant Coursework

Math: Calculus, Linear Algebra, Discrete Math, Differential Equations, Vector Calculus, Probability and Statistics

Computer Science: Data Structures and Algorithms, Computational Science, Computer Organization, Automata and Formal Languages, Computer Architecture, Object Oriented Design, Advanced Application Programming, Human Computer Interaction, Compiler Design, Operating Systems, Machine Learning, Mobile Application Development