

Prikshet Sharma

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EDUCATION	University of Rochester , Rochester, NY	expected May 2020
	<i>Degree:</i> B.S. in Computer Science <i>Degree:</i> B.A. in Mathematics <i>Clusters:</i> Music; Linguistics <i>Select Courses:</i> Augmented/Virtual Reality Development; Scalable and Distributed Systems; Computer Organization; Programming Languages	
	Acquincum Institute of Technology , Budapest, Hungary	Fall 2018
	<i>Purpose:</i> Study Abroad <i>Select Courses:</i> Cryptography; Scalable and Distributed Systems	
ACADEMIC RESEARCH	Horizon: Visual Computing with Halide	May 2018 - Present
	<i>Adviser:</i> Yuhao Zhu, Assistant Professor of Computer Science https://github.com/horizon-research/camera-pipeline	
	<ul style="list-style-type: none">Improved Google Pixel's Image Processing Unit by implementing a co-optimized imaging pipeline using Halide and OpenCV compatible with embedded systems, mobile image processors and GPUs.Implemented a Temporal Denoising algorithm in Halide and OpenCV. Demoed the algorithm and presented my research at the University of Rochester research conference.Simulated variable-parameter lenses using C++ and Code V. Fed images imparted by various lens parameters to train the parameters of a chromatic aberration correction algorithm and embedded the algorithm in an iPhone app.	
	Genesis: Gene Expression Profiling with DNNs	Spring 2019
	<i>Advisers:</i> Randal Nelson, Assistant Professor of Computer Science and Chenliang Xu, Assistant Professor of Computer Science	
	<ul style="list-style-type: none">Used Tensorflow to create DNN to predict gene expressions with 80% accuracy.Used autoencoder network to generate gene expressions given cell conditions.	
	Secura: A lightweight, high-security messaging service	Fall 2018
	<i>Advisers:</i> Levente Buttyán, Associate Professor, Head of the CrySys Lab	
	<ul style="list-style-type: none">Creating an Elliptic Cryptography based lightweight messaging service.Creating an EC ElGamal key exchange protocol.	
	Eulib: Augmenting Mathematical Receptivity	Fall 2016 - Spring 2018
	<i>Advisers:</i> Robert Kostin, Adjunct Professor of Computer Science and Henry Kautz, Professor of Computer Science and Founding Director of Institute for Data Science	
	<ul style="list-style-type: none">Creating various user interfaces using React and Node.js and measuring the users' mathematical receptivity when using the various UIs.Surveying the habits of students and researchers as to how they do research.	

WORK EXPERIENCE	TA Digital , San Francisco Bay Area, CA Data Science Intern for E-Commerce	Summer 2019
	<ul style="list-style-type: none"> Implemented, validated and evaluated robust Convolutional Neural Network Classifiers for pattern recognition and LSTMs for text forecasting and Natural Language Processing using Tensorflow and Keras. Fine-tuned GPT-2 to generate search recommendations. Implemented an automated web scraper pipeline to collect and annotate data for machine learning models. Used Solr for feature engineering to improve search relevance by 200 	
	Eulib , Rochester, NY Cofounder, Full Stack Developer and CEO	Fall 2016 - Spring 2018
	<ul style="list-style-type: none"> Developed Eulib's backend using Node.js and React to perform linguistic analysis on academic papers, and validated the full stack using Selenium. Presented Eulib's business plan at Kauffman Entrepreneurial Year conference and received \$3000 in investment. Assessed UX performance using MTurk. 	
TEACHING	CSC 172: Data Structures and Algorithms Teaching Assistant	Summer 2018
	CSC 242: Artificial Intelligence Teaching Assistant	Fall 2019
AWARDS AND HONORS	Discover Research Grant	Summer 2018 and Summer 2019
	Davis United World College Scholarship	Fall 2016 - Present
	Dean's List Member	Fall 2016 - Present
	Finalist, National Robotryst Robotics Competition	2014
ACTIVITES	Cofounder, UR Computer Vision Club	Fall 2019
	Business Manager, UR Baja SAE	August 2016 - May 2017
	Rochester Marathon Finisher	Fall 2019
	Hopeman Memorial Carillon Player	Spring 2018
	Tenor, UR Concert Choir	Fall 2019
SELECT COMPUTER SKILLS	<i>Languages:</i> Halide, C++, x86 assembly, OCaml, Scheme, JavaScript, Java, Clojure <i>Frameworks and Libraries:</i> Tensorflow, React, Redux, MongoDB, Node.js, OpenCV <i>Code Samples:</i> <ul style="list-style-type: none"> My GitHub Page: https://github.com/zendevil Horizon GitHub Page: https://github.com/horizon-research/camera-pipeline 	