

Jieru Hu

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EDUCATION

University of Wisconsin Madison

Aug 2013 – May 2018

Bachelor of Science in Engineering - Mechanical Engineering, Computer Science, Mathematics

GPA: 3.85/4.00

COURSEWORK

*Data Structure, Machine Organization & Programming, Numerical Methods, Probability Theory, Algorithms
Linear Programming, Operating System, Artificial Intelligence, Computational Geometry, Computer Networks
Numerical Analysis, High Performance Computing, Data Science, Machine Learning & Deep Learning (Coursera)*

EXPERIENCE

- **Software Development Engineer** Seattle, WA
Amazon June 2018 - Now
 - Developed Blackjack cards for Amazon India Gateway and Browse page through a data phase and a rendering phase under Perl Mason Framework
 - Maintained and documented the team service deployment pipeline, feature testing and sanity testing
 - Integrated Blackjack cards with automated scheduling services and reduced manual campaign by 45 %
- **Undergraduate Research Assistant** Madison, WI
Wisconsin Human-Computer Interaction Laboratory September 2017 – June 2018
 - Implemented the trajectory motion planning for 6-DOF Kinova MICO arm with MoveIt framework
 - Developed python scripts in ROS to execute various industrial manufacturing tasks on KINOVA MICO arm
 - Designed and built the communication interface between NodeJS UI server and Python Http server
- **Software Engineering Internship** Seattle, WA
Amazon June 2017 - August 2017
 - Designed and implemented Screenshot Social Sharing feature into Kindle iOS App production using Obj-C
 - Built Java service APIs to store and retrieve Encoded Voice data into/from AWS S3 bucket within Guice
 - Developed the voice annotation feature in Kindle iOS notebook with an end-to-end model to synchronize client voice data across multiple devices
- **Student Software Engineer** Madison, WI
Morgridge Institute for Research - Software Assurance Marketplace(SWAMP) January 2017 – May 2018
 - Enriched Perl and SQL scripts to display complete code analysis details on the Result Viewer Page
 - Developed a low memory-consuming backend service in C to parse code assessment result from XML into JSON
 - Upgraded and documented the SWAMP Perl runtime version from 5.18.1 to 5.26.1 on CentOS
 - Implemented a trigger in PHP server to launch automatic assessment of new code by GitHub Webhook event
 - Organized and stored SWAMP assessment result data into MongoDB
- **Undergraduate Research Assistant** Madison, WI
Engine Research Center March 2018 – May 2018
 - Parallelized engine simulation code in python with different input temperature and pressure combinations
 - Prepared HTCCondor job submit scripts and managed engine simulation jobs in HTCCondor Cluster

SELECTED PROJECTS

- **DataScience on Used Car:** Crawl and clean data from Cars.com, followed by entity-matching and query analysis
- **Texture Synthesis on GPU:** Parallel Implementation of Texture Synthesis on CUDA architecture
- **Name Extraction on IMDB Comments:** Learning-based information extractor implemented with cross-validation on five machine learning methods, extracting person names from natural text
- **Computational Geometry in Python:** Constructed and maintained Delaunay triangulation and Voronoi diagram for arbitrary set of points in the plane using a self-designed data structure capable of answering geometric queries
- **Breast Cancer Diagnosis:** Use quadratic programming methods to calculate SVM based on clinical datasets and predict malignancy in diagnostic procedure
- **Tic Tac Toe in React:** Implemented an interactive tic-tac-toe game in the ReactJS framework

SKILLS

- **Languages:** Python, Java, C, C++, Obj-C, MATLAB, Perl, JavaScript, SQL, PHP, Bash, R, HTML, CSS, XML, JSON, Latex
- **Technologies:** CUDA, OpenMP, MPI, ROS, Xcode, iOS-SDK, OpenCV, Mason, JQuery, MySQL, MongoDB, MariaDB, Git, Tensor Flow, scikit-learn, Pandas, Guice, ReactJs, Laval