

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

EXPERIENCE

- **Software Development Engineer** Redmond, WA
Microsoft April 2019 - Now
 - Building cloud scale distributed compute management and job scheduling service for Azure Batch
- **Software Development Engineer** Seattle, WA
Amazon Corporate LLC June 2018 - April 2019
 - Developed Blackjack card widgets on Amazon India Gateway and Browse page through a server-side data phase integrated with various backend APIs and a client-side UI/UX rendering phase under Perl Mason Framework
 - Contributed to the HOTW(Hands-Off-the-Wheel) project which automates content scheduling on thousands of the browse pages, thus minimizing the merchandising effort
 - Wrote unit tests for Perl utility files and Java UI tests under Selenium automation framework
 - Maintained the deployment pipeline, handled weekly operational tickets, and contributed to project design, wiki documentations and internal team code reviews
- **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 motion planner
 - 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 Corporate LLC June 2017 - August 2017
 - Designed and implemented Screenshot Social Sharing feature into Kindle iOS App production in Obj-C
 - Built Java service APIs to store and retrieve Encoded Voice data into and from AWS S3 bucket
 - Developed the voice annotation feature in Kindle iOS notebook and implemented 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
 - Modified 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
 - 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
Spatial Automation Laboratory November 2015 – May 2016
 - Designed and parallelized the pixel-based multi-resolution synthesis algorithm on CUDA architecture
 - Implemented kernel functions for bilinear rescale, pixel Markov property evaluation, box filtering, etc
 - Benchmarked both CPU and GPU runtime, and performed scaling analysis over different synthesis parameters

SELECTED PROJECTS

- **DataScience on Cars.com:** Built a pipeline to crawl, clean, entity match and analyze the car data from Cars.com
- **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:** Calculated Delaunay triangulation and Voronoi diagram for arbitrary set of points in the plane with a self-designed data structure capable of answering different geometric queries
- **Breast Cancer Diagnosis:** Used 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#, P#, C, C++, Obj-C, MATLAB, Perl, JavaScript, SQL, PHP, Bash, R, HTML, CSS, XML, JSON, Latex
- **Technologies:** CUDA, GRPC, OpenMP, MPI, ROS, Xcode, iOS-SDK, OpenCV, Mason, JQuery, MySQL, MongoDB, MariaDB, Git, Tensor Flow, scikit-learn, Pandas, Guice, ReactJs, Laval