Yichen Hao

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EDUCATION

Washington University in St. Louis – St. Louis, MO   *Expected Graduation: May 2021*

Major: BS/MS in Computer Science **Minor:** Mathematics

Cumulative GPA: 3.95 / 4.00 | Dean's List Fall 2017 through Spring 2019

Relevant Coursework: Analysis of Algorithms, Systems Software, Machine Learning, Web Development, Computer Vision, Parallel and Concurrent Programming, Electrical and Electronic Circuits, Systems Design

SKILLS AND TOOLS

Languages: Java, C#, Python, C++, JavaScript, HTML, CSS, MySQL, Xamarin| Chinese, English, French

Tools and Operating Systems: Eclipse, XCode, Sublime, Visual Studio, Confluence, Puppet, Krpano, Linux, MacOS

PROFESSIONAL EXPERIENCES

Explorer Intern, Microsoft – Redmond, WA   *May 2019 – Aug 2019*

- Integrated optical character recognition into Outlook to make image-based email attachments searchable by text, which will improve 60-90 million users' experiences
- Researched PDF/Docx/Pptx formats and currently available OCR solutions provided by both open source (e.g. Tika, Tesseract) and Microsoft internal (e.g. Azure OneOCR, Azure Cognitive Services) services
- Analyzed the cost for the data center to process more than 30 million files per day with OCR
- Co-authored the business proposal, functional requirements, design specification, and press release
- Implemented, deployed, and tested the feature with Microsoft technological stack including C# and .Net SDK, Substrate SDK, Azure SDK, Topology deployment service box, and Visual Studio

Site Reliability Engineer, China Telecom – Beijing, China   *Jun 2018 – Aug 2018*

- Worked with a team of 6 engineers to plan, deploy, test, and launch the distributed cloud storage service
- Reduced 80% deployment time by programming with Puppet (software configuration management tool)
- Chaired the planning and deployment of 1 petabyte resource pools in Jinhua, Shijiazhuang and Chengdu
- Monitored CPU load and network utilizations with Ganglia

Student Developer, WashU Student Development Committee – St. Louis, MO   *Oct 2017 – Present*

- Worked with an interdisciplinary group of 25 students to develop and integrate emerging technology into the student and greater campus experience
- Programmed and managed the content of the Virtual Reality Campus Tour with Krpano
- Managed documentations, service level expectations, and version control with Confluence, Bitbucket, and Jira
- Migrated the server of the Student Technology Service website

SELECTED PROJECTS

Boston Housing Price Predictor   *May 2019*

- Built and trained a feedforward Neural Network from scratch to predict Boston housing price with NumPy

Name-Gender Classifier   *Feb 2019*

- Designed and trained a Naïve Bayes Name-Gender classifier with NumPy and Cross Validation

WashU Medical School Breastfeeding Friend App   *Nov 2018 – March 2019*

- Implemented the front-end of a cross-platform mobile app that gives low-income mothers information about the benefits of breastfeeding and conducts a study regarding the app's effectiveness in promoting breastfeeding
- Designed and refined UI for experimental/control groups using Xamarin
- Tested and debugged the app with both iOS and Android devices

Patatap Visual Sound Kit Application   *Sep 2018*

- Developed a fun and interactive visual sound game with Howler.js and Paper.js
- Designed visual animation associated with 26 melodic sounds each triggered by pressing the A to Z keys

Online Reversi Board Game   *Mar 2018*

- Programmed an online Reversi Board Game with React.js which can track steps and alert illegal moves
- Deployed and hosted the game on Azure virtual machine
- Embedded a video tutorial and background music

News Website   *Jan 2018*

- Designed a News Website with PHP and MySQL which allows users to create account with a securely hashed password, post/edit stories, and comment on the news