Amy Yu

Work Experience

- Purdue – Research Assistant
  August 2023 – present, West Lafayette, Indiana, USA
    o Research Assistant for Professor Angus Forbes.
    o Implementing LLM search for the FathomNet ocean database.
- Facebook - Software Engineer
  July 2019 – August 2023, San Francisco, USA
    o Worked on Facebook Typeahead to improve search and navigation, and the Mentions product to encourage more user engagement.
    o Developed models for ranking typeahead suggestions based on entity features and user engagement.
    o Implemented and expanded Structured Typeahead Suggestions to disambiguate between entities with the same name and provide more information to the searcher with images and snippets.
    o Became the engineer in charge of Facebook's shortcut feature that allows users to find and navigate directly to Facebook's products. Worked on internal tools for adding new shortcuts to Facebook's products, and improved the reliability of shortcut triggering to increase impressions.
    o Led the development of the batch mentions feature to allow users to mention all group members at once and send notifications to millions of mentionees.
    o Managed and provided mentorship to interns.
- Facebook - Software Engineering Intern
  Sept 2018 – December 2018, San Francisco, USA
    o Worked on Forecaster, an internal tool that extrapolates time-series to find patterns in past data to predict future trends.
    o Learned about and used models and libraries for extrapolating data.
    o Implemented APIs using k-NN to generate related videos recommendations when the user is watching a Facebook video while logged out.
- Microsoft - Software Engineering Intern
  May 2018 – August 2018, Redmond, USA
    o Independently implemented R2RDump, a command-line tool that parses .NET ReadyToRun binary executables to display assembly code, ARM and x64 UnwindInfo, and garbage collection tables.
    o Investigated and learned about low-level assembly code and how binary executables are formatted and compressed.
    o Worked on multi-module compilation to allow multiple .NET programs and libraries to be compiled into a single ReadyToRun executable.
- Cisco Meraki - Software Engineering Intern
  September 2017 – December 2017, San Francisco, USA

- Worked on embedded software for Meraki MR access points that does authentication when it connects to a switchport by sending and receiving EAP authentication packets from the switch.
- Implemented a feature that uses the SSCEP protocol for the access point to obtain a signed certificate from the CA server to use as the authentication credentials.

- IBM Canada - J9 Virtual Machine Developer Intern
  January 2017 – April 2017, Ottawa, Canada
  - Worked on Project Panama, a new feature for IBM's JVM that allows Java programmers to call C/C++ functions with native method handles (a safer and more user-friendly alternative to JNI).
  - Added new C++ classes to the Java Core Library to implement APIs that create and invoke native method handles.
  - Investigated how to pass arguments and return values of various data types (primitives, pointers, structures) through the runtime stack between Java and native methods.

- SAP Canada - Core Infrastructure Developer Intern
  May 2016 – August 2016, Waterloo, Canada
  - Added fingerprint scan functionality to the SAP Kapsel Logon plugin for hybrid mobile development that allows users to unlock apps with a fingerprint instead of a passcode.
  - Independently designed and implemented a tool that allows users to map JSON data into a HandlebarsJS template.

- Bank of Canada - Web Developer Intern
  September 2015 – December 2015, Ottawa, Canada
  - Independently developed a WordPress plugin that tracked media usage throughout the five Bank of Canada websites.
  - Wrote PHP scripts and MySQL queries that search and modify tables from a large database.

Education
- Purdue University
  August 2023 – *present*
  - Master of Science (Computer Graphics)
- University of Waterloo
  September 2014 – June 2019
  - Bachelor of Computer Science (With Distinction)

Awards and Scholarships
- Term Dean's Honours List
  - Term average of 90.2%
- Jessie W.H. Zou Entrance Scholarship
  - Awarded to a first year female Computer Science student
- University of Waterloo President's Scholarship
  - Awarded to students with admission averages above 90%