Yuchong Pan

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Education

- **University of British Columbia** — Vancouver, BC
  B.Sc., Combined Honours Computer Science and Mathematics, Minor in Philosophy — *September 2017 – May 2021*
  - **Overall Grade Average**: 94.3%
  - **Coursework**: Combinatorial Optimization*, Submodular Optimization*, Tools for Modern Algorithm Analysis*, Probability*, Stochastic Processes*, Theory of Computing*, Compiler, Programming Languages (* graduate)

Selected Employment

- **Microsoft** — Vancouver, BC
  Software Engineer Intern, .NET — *May 2020 – August 2020*
  - **.NET Runtime IL Interpreter**: Resurrected the IL (intermediate language) interpreter inside the .NET Runtime. Conducted performance analyses for the various configurations of the IL interpreter.
- **Microsoft** — Redmond, WA
  Software Engineer Intern, .NET — *June 2019 – August 2019*
  - **.NET Core Uninstall Tool**: A guided tool that enables the controlled clean-up of a system such that only the desired versions of .NET Core SDKs and Runtimes remain.
  - **MSBuild Binary Log Query Language**: A domain-specific language extending XPath (XML Path Language) that provides multiple search operators for advanced queries on the target graph parsed from MSBuild binary logs.
- **Microsoft** — Vancouver, BC
  Software Engineer Intern, Garage — *May 2018 – August 2018*
  - **Earth Lens**: An open-source project for iPad that identifies, tracks, and analyzes objects in aerial imagery to assist in disaster relief and environmental conservation.
- **Sogou** — Beijing, China
  Software Engineer Intern — *May 2017 – July 2017*
  - **Speech-Recognition & OCR Proofreading Tools**: Web apps for internal proofreading and testing of AI-Cloud speech recognition and OCR services; based on Bootstrap, Vue.js, Flask and Docker.
  - **Receipt Recognition Service**: A service for receipt format and content recognition; based on Flask, scikit-image and Sogou AI-Cloud OCR Service; used for reimbursement management of Sogou's financial department.

Selected Projects

- **THE Hack**: The largest hackathon in China with 500 participants, 2,000 applicants from over 400 schools and 8 countries; served as Co-Founder and Director of Technology.
- **Gradual Octave**: Extended the Octave programming language with a gradual type system, incorporating benefits of both static and dynamic type systems.
- **MiniJava**: MiniJava is a subset of the Java language. Implemented a MiniJava-to-x64 compiler, including phases of frontend, intermediate representation, code generation, and optimization.

Selected Awards

- **Science Scholar / Dean's Honour List, University of British Columbia** — *2018, 2019, 2020*
- **Trek Excellence Scholarship, University of British Columbia** — *2018, 2019*
- **Faculty of Science International Student Scholarship, University of British Columbia** — *2018, 2019*
- **Stanley M Grant Scholarship in Mathematics, University of British Columbia** — *2019*
- **11th Place, ACM International Collegiate Programming Contest Pacific NW Region** — *2017*
- **Outstanding International Student Award, University of British Columbia** — *2017*
- **Silver Medal, China Team Selection Competition for International Olympiad in Informatics** — *2015*
- **Bronze Medal, Asia Pacific Informatics Olympiad** — *2015*
- **First Prize, National Olympiad in Informatics in Provinces** — *2013, 2014*

Programming Skills

- **Languages**: C++, Python, Java, C#, Racket, Standard ML, Ruby, MATLAB, Go, JavaScript, MySQL, LaTeX
- **Technologies**: Django, Flask, Tornado, Microservices, Bootstrap, Vue.js, AngularJS, D3.js, Node.js, Marko.js, Ionic, Nginx, Redis, Docker, Amazon AWS, Microsoft Azure, .NET, Xamarin, Microsoft Build Engine (MSBuild)