

# Kartikaya Gupta

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[ This résumé was last updated in August 2020 ]

## Summary

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- Platform-focused: Excited about building modular systems- and platform-level software components to enable great products
- Productive: One of the top 5 all-time committers to the complex mozilla-central (Firefox) code repository
- Polyglot: Expertise in C++, Rust, Java, and Bash; significant experience with Python, SQL, HTML, CSS, JavaScript and many other languages
- Pandemic-ready: Over 7 years of experience working remotely in a globally distributed team; extremely comfortable with async communication

## Work Experience

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- **Mozilla Corporation - Toronto, Ontario and Remote**
  - Staff Software Engineer, Platform Graphics Team (Mar '18 - date)
  - Software Engineer, Platform Graphics Team (Oct '13 - Feb '18)
  - Software Engineer, Mobile Platform Team (Oct '11 - Sep '13)
    - Architected and implemented many key features of the Gecko rendering engine's "Asynchronous Panning and Zooming" module; official module owner
    - Worked on significant portions of code integration, infrastructure, and tooling for bringing the Rust-based WebRender graphics engine to Firefox
    - Helped diagnose and fix myriad Firefox infrastructure, build system, and product regressions that crop up periodically
    - Inherited and continued development on Searchfox, the primary source code browser for the Firefox code base, mostly in my spare time
    - Contributed to many upstream open source projects (e.g. pdf.js, git2-rs) across a variety of languages and ecosystems as needed
- **Research in Motion, Ltd. - Waterloo, Ontario**
  - Software Developer, Browser Development (Jun '07 - Jun '10)
    - Architected the standards-compliant Mango rendering engine for the BlackBerry browser (shipped on BlackBerry OS 4.6 - 5.0)
    - Implemented various components of the Mango engine, including the DOM, parsers, and Javascript bindings
    - Improved reliability of device code by developing various automated test frameworks and static analysis tools

## Co-ops and Internships

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- Software Developer SlipStream Data, Inc. - (Sep - Dec '06)  
Waterloo, Ontario
- Software Engineer, AdWords Frontend Google Inc. - (Jan - Apr '06)  
Mountain View, California
- Software Developer SlipStream Data, Inc. - (May - Aug '05)  
Waterloo, Ontario
- Software Developer, J9 Virtual Machine IBM Canada, Ltd. - Ottawa, Ontario (Sep - Dec '04)
- Junior Software Developer, Systems Group Research In Motion, Ltd. - (Jan - Apr '04)  
Waterloo, Ontario
- Junior Software Developer, Systems Group Research In Motion, Ltd. - (May - Aug '03)  
Waterloo, Ontario

## Selected Personal Projects

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- Wrote multiple tools for personal use in a Java monorepo, including a personal finance tracker, password manager, and encrypted file backup system
- Creator and maintainer of various Rust crates, including the popular mailparse crate
- Using HTML, JavaScript, CSS, Perl, PHP, Rust, and SQL on a constantly-evolving personal information management system including a webmail interface, address book, and calendar

## Formal Education

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- Master of Mathematics (Research Paper Option) in Computer Science (Networking and Distributed Systems Group), University of Waterloo, Waterloo, ON, Sep '10 - Aug '11
- Bachelor of Software Engineering in Honours Co-op Software Engineering, University of Waterloo, Waterloo, ON, Sep '02 - Jun '07. Graduated with distinction on Dean's Honour List with cumulative average of 90.8%
- International Baccalaureate Diploma, International School Manila, Makati, the Philippines, Jun '02. Graduated with 3.95/4.0 unweighted GPA and 41/45 points on the IB diploma

## Selected Activities and Interests

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- Recreational badminton player, powerlifter, and road cyclist
- Condominium board member (Nov '19 - date)
  - Working with management company and other board members to address owner and resident concerns
- Member of Ambitious City Toastmasters Club (Apr '14 - Sep '16)
  - Completed all requirements for the Competent Communicator and Competent Leader training manuals
  - Served as VP of Public Relations and Sergeant-at-Arms
- Travel: lived in 9 countries; traveled extensively to over 25 countries