

# Andrew Comminos

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## Education

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### University of British Columbia

September 2013 - May 2018 (expected)

Bachelor of Science, Major in Computer Science (4th year)

- Cumulative GPA: A (86.0%), Major GPA: A+ (90.4%)
- Consistently ranked within top 15% of class in academic performance

## Experience

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### Amazon Web Services

May 2017 - July 2017

Software Development Engineer Intern

- Created a scalable Python backend for real-time aggregation and time series analysis of customer data for a new AWS product
- Developed a web dashboard in React.js to provide visualization of aggregated customer data, allowing stakeholders greater insight into customer use cases
- Built an intelligent alarm system integrated with AWS CloudWatch to report anomalous patterns in aggregate customer metrics and proactively identify operational issues with the product

### Mozilla

May 2016 - August 2016

Platform Software Engineer Intern

May 2015 - August 2015

- Worked on OpenGL acceleration for Firefox for Linux, fixing rendering correctness issues and improving scrolling performance
- Added support for rendering to high-resolution displays to Firefox for Linux, allowing content to be drawn crisply at any scale
- Implemented a WebGL extension to allow developers to measure the performance of draw commands and optimize accordingly
- Improved Firefox's GTK+3 toolkit backend to a shippable state, enabling a faster and more consistent rendering strategy

### Fullboar Creative Corp

June 2011 - January 2015

Mobile Software Developer

(seasonal and part-time)

- Created prototypes for native e-commerce clients on iOS and Android using RESTful APIs for restaurant order fulfillment
- Developed a significant portion of the iOS site safety app SiteDocs, utilizing MVC and object-oriented design principles
- Implemented a UI for querying nodes and displaying results in the iOS client for PathTest, a network testing app

## Personal Projects

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### Plumble

github.com/acomminos/Plumble

- Java voice and chat communications client for Android phones and tablets, implementing the Mumble VOIP protocol
- Over 200,000 downloads and a 4.5 star rating on Google Play
- Founder and current maintainer of the large open source community around the project

### Quarke

github.com/acomminos/quarke

- Multipass 3D renderer written in C++ targeting OpenGL 3.3
- Uses modern real-time rendering techniques such as omni-directional shadow mapping and SSAO

### cvds

github.com/acomminos/cvds

- Python computer vision library to identify and extract LCD displays in videos into source-like footage
- Detects, transforms, and enhances picture data from displays in real time using optical flow based heuristics

## Skills

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**Languages:** C++ · C · Java · Go · Python · JavaScript · Objective-C · Haskell · Rust

**Libraries/Tools:** Android · OpenGL · AWS · GTK+ · Cairo · Cocoa Touch

**Fields:** Systems · Graphics · Algorithms · Distributed Systems