

jamesandreou

contact

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github.com/jamesandreou
www.jandreou.com

languages

Java, JavaScript, C, C++,
HTML5, CSS3

skills

Algorithms, Operating
Systems, Unit Testing,
Networks, Security, User
Interfaces, Artificial
Intelligence, Big Data,
Performance
Optimization

technology

Node.js, ReactJS,
Android, Unix, Git,
Web Browsers, Linux

👤 experience

Google - Software Engineer Intern

(September 2016 - December 2016)

- Created a natural language processing back end converting human text queries to complex Adwords reports and graphs
- Modified the natural language engine to detect a user intent to add or remove parts of a report from **previous context** rather than creating a fresh report for each query
- Created a front end component to interface with the back end engine allowing users to input natural language queries that validate if they are **translatable in real time**
- Participated in a user research study sprint to determine the best design and feature set for a successful launch

Mozilla - Software Engineer Intern

(May 2016 - August 2016)

- Overhauled the DOM node children data structure from memory shifting array to doubly linked list with an iteration friendly index caching strategy
- Micro optimized the new DOM node children api resulting in insertion/removal operations performing **200-600% faster** on large DOM trees
- Integrated private browsing into the web origin security model for an improved security API across private and non private web context

🎓 education

University of Waterloo

(September 2013 - December 2017)

Candidate for **Bachelor of Computer Science (BCS)**,
Business Option, Combinatorics and Optimization Minor

🚀 projects

Graph Toolbox (www.graphtoolbox.com)

- Created a web app to visually create, manipulate and run algorithms on graphs
- Ability to test if a graph is planar and compute a graphical planar embedding, or find a K5/K3,3 minor proving the graph is not planar
- Some features include: directed / weighted edges, preset graphs, dynamic UI

Beugo the Blob (play.google.com)

- Developed an android arcade game implementing soft body physics algorithms to emulate blob bodies
- Additional features include different difficulties, interactive tutorial, level system and much more

WLP4 Language Compiler

- Created a compiler for a subset of the C++ language called WLP4
- Implemented tokenizer, lexer, code generator for main features of C++

🏆 extracurriculars

University of Waterloo - Actuarial Science Club Executive

- Coordinated with executive team to manage events, club meetings and financing

University of Waterloo - Computer Science Club Member

Rugby Secondary School Undeclared Season

Volunteer Tutor for Secondary School math students

Secondary School TA Junior Computer Science