

JOEL DE LA CRUZ

MAKING IDEAS INTO PRODUCTS

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EMPLOYMENT

Software Engineering Intern	Google	Summer 2019
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Ads DBM Team

- Designed and developed an algorithm that utilizes dynamic programming and window sliding to select the highest scoring segments of a video, given a list of allowed preview durations.
- Setup video processing system that runs all possible steps in parallel to handle data dependencies without blocking threads.
- Setup indexer to be able to load library assets on data changes, and setup two-way link with ad creatives so we can query in the REST API.

Software Engineering Intern	Google	Summer 2018
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Search UGC Team

- Decreased software development time, and unified the Google search codebase by designing and developing an intuitive and standardized Sentiments component framework for code reusability, along with in-depth documentation for developers. All logic is handled including: UI changes on selection, and maximum selection handling.
- Improved software quality by adding unit tests and graceful error-handling which would have otherwise been optionally added by developers.

Software Engineering Intern	Google	Summer 2017
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Geo Schema Team

- Improved web page load time by 60.87% by upgrading to Angular 2, breaking the web application into components, and expunging and repairing unutilized/inoperative features.
- Improved software reliability by improving the UI, which prevented invalid data and introducing front-end tests which discovered software bugs that went unnoticed.
- Introduced impact statistics for Geo Data modifications, allowing for more sensible Geo Data related decisions.

Software Engineer, Intern	FP&L/NextEra Energy	Summer 2016
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Smart Grid Team

- Improved data retrieval speed and data accuracy by implementing Ray Casting algorithm to filter out irrelevant geolocations in the back-end.
- Recommended and implemented data visualization improvements to award-winning Smart Grid web application.

Software Engineer, Intern	Julie Braun Inc.	Spring 2016
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Front-End Team

- Improved web page load time by 64% by introducing/implementing optimization methods & refactoring code.
- Improved website mobile-friendliness amongst all web pages by introducing/implementing proper mobile-friendly practices and technologies.

EDUCATION

Miami, Florida	Florida International University (FIU)	Fall 2016 – Present
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- Expect to graduate in December 2019.

Competitive Programmer	FIU Programming Team
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University Team Member(varsity - paid member)

- Compete against universities in collegiate programming contests, utilizing data structures and algorithms.

Projects

- **Created a Packet Sniffer** (Fall 2015)

-Ethical Hacking Tool; network utility program that reads network packets.

Recently Used Skills: Web application architecture, Software Engineering, Algorithms, C++, Java, Drishti media processing framework, Producer API, Multithreaded systems, Angular, React, MongoDB, SQL, Software systems design, Object-Oriented patterns, MVC patterns, General software design patterns, Spanish/English Fluent.