

## Pradyoth Kukkapalli

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### Objective

Find and solve the most challenging problems with creative, and elegant software systems.

### Professional Experience

#### Google

Software Engineer

*New York, NY*

*September 2016 – Present*

- **Path Reports:** designed and implemented a system for advertisers to understand user journey patterns.
  - Provided an interface with AngularDart and Javascript for labeling path events with attributes and custom labels.
  - Created exhaustive validation in Java to ensure that user-created reports and rules are valid.
  - Implemented task scheduling in C++ allowing users to run their reports on a schedule.
  - Designed an API to allow users to interact with their path reports programatically.
- **Reporting Unification:** created a unified report builder to give advertisers a consistent reporting experience across Display & Video 360 and Campaign Manager.
  - Created features that worked across GWT, AngularDart, and Javascript to ensure a smooth migration.
  - Created a service in Java to automatically generate reports based on the user's targeting settings.
- **Activity Tracking:** created a system to track low-usage or non-performant features.
  - Worked seamlessly across AngularDart and Javascript apps.
  - Wrote a logging system in Java that could be queried with SQL to create insights and dashboards.

#### Squarespace

Software Engineer

*New York, NY*

*July 2015 – August 2016*

- **Blog Post Syndication:** created a system to allow users to syndicate their blog posts to third-party content platforms, such as Apple News, and Google AMP.
  - Created a Java library to authenticate with Apple News, and build Apple News API objects.
  - Created a Java library to translate Squarepace blog posts from MongoDB into AMP articles.
  - Created a pipeline to listen for blog post changes and push updates to Apple News and AMP.
- **Getty Image Picker:** created an interface in React to allow users to purchase and use licensed Getty images on their sites.

#### Goldman Sachs

Software Engineering Intern

*New York, NY*

*June 2014 – August 2014*

- **Device inventory accounting:** created a system to track and query devices used across the company.
  - Aggregated company-wide device stats on a Hadoop cluster.
  - Created a service in Java with a REST interface, and queued updates for Hadoop in MongoDB.

#### Wayfair

Software Engineering Intern

*Boston, MA*

*June 2013 – August 2013*

- **Tax document generation:** created a system to keep track of Wayfair's finances in order to generate Lawson reports for the IRS or auditors.
  - Created an extensive PHP framework with over 15k lines of code to pull data from MSSQL and push updates to Lawson.

#### MeetMe

Software Engineering Intern

*New Hope, PA*

*June 2012 – August 2012*

- **Spam account detection:** created a system to detect spam accounts by comparing images on the accounts with a database of known spam images.
  - Created a three-layered comparison algorithm in C++ and PHP using md5 hashes, perceptual hashes, and OpenCV histograms to create an accurate, and fast classifier.

## Kotlin

Cornell University - Ithaca, NY

Open Source Contributor

January 2014 – May 2014

- Intention actions: created actions to format and improve Kotlin code in IntelliJ.
  - Wrote actions in the Kotlin plugin to allow users to pick up Kotlin idioms as they work with the language.

## Hunter Rawlings Research Scholar

Cornell University - Ithaca, NY

Student Researcher

September 2011 – May 2015

- Kinect point clouds: generated 3D models from an Xbox Kinect using the Pointcloud Library in C++.
- Higher-order Java inheritance: Worked on an experimental language extension to Java that allows package inheritance, a higher level of inheritance than class inheritance.

## Outside of work

### NFL Data

New York, NY

Owner and author

December 2018 - Present

- Gathering NFL data: built a system using Scrapy and SQLite in Python to gather data from Pro Football Reference.
- Analyze NFL data: used Jupyter notebooks, Pandas, and Seaborn to analyze and visualize NFL data. Wrote two blog posts using this data: [Dispelling Eagles Injury Myths](#) and [Is the NFL Serious About Concussions?](#)

## Education

**Cornell University**: Class of 2015 – B.S. Computer Science

**Charter School of Wilmington**: Class of 2011

## Relevant Coursework

- Functional Programming
- Embedded Systems Programming
- Compilers
- Information Retrieval
- Database Systems
- Operating Systems
- Artificial Intelligence
- Natural Language Processing
- Machine Learning
- Algorithms
- Cloud Computing
- Differential Equations
- Linear Algebra
- Probability

## Technical Expertise

### Languages

Java	C/C++	HTML/CSS/JS	Python	Dart	Ocaml
PHP	Shell scripting	Swift	Go	Kotlin	SQL

### Libraries

OpenCV	SFML	SDL	React	React Native	Angular
Polymer	jQuery	Flutter	Pandas	Seaborn	Matplotlib
Numpy	Scrapy	Jupyter	Flask	RabbitMQ	Kafka
Guice	Spring	Dropwizard			

### Databases and Caches

MongoDB	PostgreSQL	MySQL	Spanner	Redis	Memcached
Firebase	MSSQL	Neo4j			

### Tools

Git	Mercurial	CMake	Make	Gradle	Pip
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## Hobbies

- Sketching
- Watercolor painting
- Basketball
- Weightlifting
- Ping pong