

**TILAK PATEL**  
**GEORGIA INSTITUTE OF TECHNOLOGY**  
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**EDUCATION**

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**GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, GA**

*August 2013 – December 2016*

- Candidate for Bachelor of Science in Computer Science
- GPA: 3.65
- Related Coursework: Data Structures and Algorithms, Database Systems, Objects and Design, Computer Organization and Programming, Information Visualization, Computer Systems and Networks, Machine Learning, Computer Simulation

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**SKILLS**

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**Programming:** Java, JavaScript (D3.js, Highcharts.js, jQuery), Python, SQL(MySQL) & NoSQL(MongoDB), C (Basic), HTML, CSS/SCSS

**Standards & Frameworks:** AngularJS, Android SDK, RESTful Web Services (Jax-RS), JUnit, XML, JSON, ExtJS, Jasmine, Spring (Basic), Servlets (Basic), Maven, ORM (proprietary XML/Java-based ORM framework called Mithra), Eclipse Collections (formerly GS Collections - supplement for the Java Collections Framework)

**Version Control:** Git, Subversion

**Software:** Adobe Creative Suite (Photoshop CS6, Illustrator CS6), Android Studio, IntelliJ, Eclipse, SPSS

**Foreign Languages:** Fluent in Hindi and Gujarati, Basic Spanish and French

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**PROFESSIONAL EXPERIENCE**

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**Goldman Sachs, New York, NY**

*June 2016 – August 2016*

**Balance Sheet Engineering (Controllers Technology), Software Developer Intern**

- Gathered requirements, designed, and implemented a full stack web-app from the ground up including database, business logic, and UI using Java, AngularJS, REST APIs, and Mithra (a proprietary ORM framework)
- Automated/reduced the interaction between the business and technology users by displaying the data needed such as the batch start/end times with the snapshot of the Balance Sheet Workstation on the web-app for the GS Loans (Business) department users
- Developed a RESTful service (using Jersey) to provide all the CRUD capabilities that allowed users to not only view the necessary data but also post any issues related to a batch run
- Built an interactive visualization (using Highcharts.js) to display the number of batches that are completed, in-progress, or incomplete for all the business dates of the month

**IBM, Raleigh, NC**

*May 2015 – August 2015*

**WebSphere Portal System Performance, Software Developer Intern**

*Part-time: August 2015 – May 2016*

- Developed a Java servlet to analyze statistical quality assurance data such as TPS (transactions per second) and response time between runs/builds using SPSS, a statistical analysis package
- Automated the statistical analysis by invoking the SPSS Java interface from within the Java program
- Parsed the output provided by the statistical analysis and displayed it on a single page web application
- Reduced time needed to produce the statistical analysis by 95%

**GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, GA**

*August 2014 – October 2014*

**ADAM Lab (Drawing Apprentice), Front-end Research Assistant**

- Designed a method to take an array of points (from server side) and draw them dynamically (in time) on a HTML canvas
- Developed an interface for controlling the Drawing Apprentice sketching system manually
- Fixed minor bugs (improve UI) for a HTML canvas

**HEWLETT-PACKARD (HP), Alpharetta, GA**

*May 2014 – August 2014*

**Enterprise Architecture and Frameworks, Technical Development Intern**

- Added a new, improved splash-screen for two web consoles using HTML, CSS, and ExtJS
- Conducted integration testing and unit testing via JavaScript plugins such as Jasmine and Siesta of the two web consoles
- Enhanced the UI for the two web consoles by switching from the classic ExtJS UI to a new Flat UI
- Refactored through more than 10 controllers in order to improve maintainability

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**TECHNICAL EXPERIENCE**

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**GOOGLE**

*May 2015 – August 2015*

**CodeU Mentorship Program, Participant**

- Worked on a series of technical exercises focusing on data structures and algorithms under the guidance of a Google engineer mentor
- Completed Udacity's Developing Android Apps course, and worked with one other participant to create an Android app in two weeks

## **CENTER FOR DISEASE CONTROL (CDC)**

**Health Informatics on FHIR - Senior Design Project, Software Developer**

*August 2015 - Present*

- Collaborated with the CDC and developed a FHIR application that uses EMR/EHR data to improve the quality of data that is currently collected through death certificate forms
- Implemented Structured Data Capture (SDC) frameworks with FHIR resources for death reporting and developed an algorithm that helps physicians to determine the cause of death
- Increased accuracy of death reporting data between jurisdictions and reduced time for healthcare organizations to exchange health information electronically across silos through the application
- Created visualizations such as a Treemap and Directed Graphs and using D3.js and NetworkX respectively in order to display correlations between causes of deaths

## **PERSONAL PROJECTS**

- **TL;DR (Android App):** Summarize articles in order to make it easier for users to take a preview of the text without reading it. Functionalities include save, share, and display article summaries automatically based on alarms.
- **Vachanamrut Study App (Android App):** Read the Vachanamrut (scripture of Swaminarayan Organization) in Gujarati as well as the English translation. Functionalities include search, notes, language toggle, auto-scroll, and night mode.
- **Attendance.io (WebApp):** Edit Google Spreadsheet via a HTML page that uses Google Apps Script (JS) in order to mark people as present for weekly assemblies held at temple.

## **LEADERSHIP**

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**BAPS ATLANTA TEMPLE, Lilburn, GA**

*May 2013 – Present*

**Regional Administrator, Co-Lead**

- Currently coordinate with various leads from the Southeast region to ensure that long-term goals are being accomplished, communication takes place, and projects are planned in a timely manner
- Handle weekly and monthly reporting on assemblies held at the temples, conduct report analysis, logistics, and manage IT infrastructure

**BAPS ATLANTA TEMPLE, Lilburn, GA**

*August 2009 – Present*

**Creative Director, Graphics Designer Leader**

- Successfully led the inaugural National Convention 2013 for 10,000 attendees with a \$10,000 budget by executing and designing 60 exhibition panels, which will now become a permanent exhibition for the temple
- Designed a plethora of posters, brochures, wallpapers for the temple's different occasions

## **CONFERENCE PAPER AND PRESENTATIONS**

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- Patel, Tilak, Jay Patel, Calvin Lin, Matt Nasiatka, Derrick Williams, and Vishnu Premsankar. "Data Mining of Sequential Patient Conditions for Death Reporting." *IEEE Engineering in Medicine and Biology Society. Proc. of 2016 IEEE International Conference on Biomedical and Health Informatics*, Las Vegas, Nevada. EMBS, 1 Feb. 2016. Web.

## **ACTIVITIES AND INTERESTS**

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- Programming Team, GT WebDev, GIT MAD (Make Mobile Apps), Intramural Sports (Basketball, Dodgeball), 3D Printing