TILAK PATEL
GEORGIA INSTITUTE OF TECHNOLOGY

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EDUCATION

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 & Algorithms, Database Systems, Computer Organization & Programming, Information Visualization, Computer Systems & Networks, Machine Learning, Computer Simulation, Information Security

SKILLS

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

PROFESSIONAL EXPERIENCE

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 necessary data 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

TECHNICAL EXPERIENCE

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 – May 2016*

- 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.
- **What's to Eat @ GS?! – GS Internal Hackathon (Web App)**: Winner for Best UI/UX at GS Internal Hackathon 2016. Allow Goldman Sachs employees to post and like what is there to eat based on the floor/building.
- **Attendance.io (Web App)**: 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. Send automated emails using Google Apps Script that serve as reminders to users who have not filled out the attendance sheet.
- **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.
- **World's Hardest Maze (C):** Game developed in C that can be played in a Gameboy emulator. Based on the World's Hardest Game.
- **Zika Virus Propagation (Python):** Simulation in Python (NetworkX and Matplotlib Basemap) to understand the potential propagation dynamics of the Zika Virus in the US via an airline route network. Based on the Kermack-McKendrick SIR model with delay, incubation, and O'Leary's add-on for vaccination.

LEADERSHIP

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

- 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

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