GABRIELLE A. TAYLOR

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SUMMARY

Software engineer with four years of experience. Full-stack web developer, iOS developer, and tech lead. Consultant specializing in agile process, product focused development, and project planning and management. Focus on mentorship, coaching, and team building.

EDUCATION

University of California, Berkeley Extension. *Berkeley, CA. May 2019 - Aug. 2019.* Certification in Project Management.

Columbia University, School of Engineering. *New York, NY. August 2013 - May 2017.* B.S. in Computer Science.

EXPERIENCE

Senior Software Engineer. Carbon Five. San Francisco, CA. October 2019 - Present Senior Software Engineer from Jan. 2022 - Present. Software Engineer from Oct. 2019 - Dec. 2021.

Carbon Five is a digital software development agency that practices extreme Programming (XP), a form of agile software development. I work with clients, developers, designers and project managers to design, plan and implement software products. I serve as technical leadership for clients, help teams navigate organizational restructures, and tailor engineering process to client needs. I also lead a company-wide accessibility workgroup aimed at developing employee knowledge and creating resources to help clients prioritize accessibility in their products.

Projects include adding digital wallet functionality to the native iOS app for a large financial institution, a native iOS app for a HIPAA compliant multi-platform mental health coaching platform, a React Native app for an internet enabled cooking device company to communicate with one of their devices, and internal tooling for employee time tracking and billing. Currently, I work with a large financial institution on an internal client relationship management platform.

Freelance Developer, Agile Consultant. EduFocal. Kingston, Jamaica. March 2019 - April 2019

EduFocal is an online learning platform with content developed specifically for exams taken at primary and secondary educational levels in Jamaica. I planned and lead a website redesign effort, provided advice and training in agile software development practices, facilitated product level business decisions, and implemented some new features in React.

Software Engineer. Carbon Five. San Francisco, CA. April 2018 - January 2019 Software Engineer from Dec. 2018 - Jan. 2019. Associate Software Engineer from Apr. 2018 - Dec. 2018.

Carbon Five is a digital software development agency. Projects include a secondary securities brokerage platform in React and Rails for a financial technology (fintech) company, an internal product lifecycle management tool in React, Typescript, and Rails for an ethical clothing design and manufacturing startup, and a marketplace platform in React for a large financial institution.

Full Stack Software Engineer. Present Company. San Francisco, CA. October 2017 - April 2018

Present is a location based women's networking app on iOS, Android and web. I focused on backend work in Java with Spring, Google Cloud Datastore, and hosted on Google App Engine. Added support for core user facing features including the timeline, groups, messaging, and push notifications. Developed reporting tools in Java used for platform metrics and administrative console in React used for user and content moderation.

Teaching Assistant. Computer Science Department, Columbia University. January 2015 - August 2017

TA over nine semesters for multiple classes, including: "Computational Aspects of Robotics", a graduate level overview of the application of computers and implementation details of typical problems in robotics; "Fundamentals of Computer Systems", an introductory class to digital logic and computer architecture and organization; "Data Structures in Java", an introductory class to data types and structures; and "The Art of Engineering", a CS/CE Department seminar for Freshman engineering students which involved writing firmware in C for an HP 20b Business calculator.

TECHNICAL SKILLS

- ▶ **Programming Languages:** Fluent in C, Java, JavaScript, Python, Ruby, Swift. Some C++, Pascal.
- Frontend/Web: Responsive web design. SPAs. HTML, CSS, JavaScript. Sass. React, Redux. RxJS. Node.js. Some PHP.
- Backend: Ruby on Rails. ExpressJS. Spring Boot. Some Phoenix, Flask, Django, Laravel.
- ▶ **Mobile:** iOS development in Swift. Familiar with Passkit. RxSwift, RxCocoa. React Native.
- Databases: Relational database design. SQL, PostgreSQL, MySQL, SQLite, Redis.
- Functional Languages: Reactive Programming. OCaml, Elixir.
- Cloud Application Platforms: Application setup and deployment with Firebase, Heroku, Google Cloud Platform.

- ▶ **Application Monitoring:** Crashlytics, Newrelic, Bugsnag, Sentry, Airbrake.
- Data Tracking and Analytics: Google Analytics, Segment, Braze
- Version Control: Git. Gitflow. Github, Gitlab.
- ▶ Continuous Integration: Circle CI, Travis, Gitlab CI
- Package Managers: Homebrew. Npm, Yarn. RubyGems, Bundler. Cocoapods, Swift Package Manager.
- Build Tools: Webpack. Fastlane.
- Markup Languages: Markdown, LaTeX.
- Numerical/Scientific Computing Languages, Libraries: MATLAB, NumPy, SciPy, Matplotlib, Pandas, OpenCV.
- ▶ Instruction Sets: LLVM IR, MIPS ISA.
- Hardware Description Languages: SystemVerilog.

CERTIFICATE IN PROJECT MANAGEMENT COURSEWORK

- **BUS ADM X470 Intro to Project Management**
- **BUS ADM 813 Intro to Project Management Tools**
- BUS ADM X470.9 Project Scope and Quality Management
- **BUS ADM X442.7 Project Initiation and Planning**
- BUS ADM 814 Advanced Project Management Tools
- BUS ADM X440.4 Project Schedule and Risk Management
- ▶ BUS ADM X471.9 Project Execution and Control
- ▶ BUS ADM X474.3 Project Cost and Procurement Management
- ▶ BUS ADM X469.2 Project Leadership and Building High Performing Teams

UNDERGRADUATE TECHNICAL COURSEWORK

- COMS4733 Computational Aspects of Robotics
- COMS6156 Topics in Software Engineering
- ▶ COMS4111 Introduction to Databases
- COMS3998 Undergraduate Projects in CS
- ▶ COMS4115 Programming Languages & Translators
- COMS4156 Advanced Software Engineering
- COMS4170 User Interface Design
- CSEE4140 Networking Lab
- CSEE4840 Embedded Systems
- ▶ CSEE4824 Computer Architecture

- CSEE4119 Computer Networks
- CSEE3827 Fundamentals of Computer Systems
- ▶ COMS3202 Discrete Math
- MATH2010 Linear Algebra
- ▶ SIEO4150 Intro to Probability and Statistics
- ▶ COMS3261 Computer Science Theory
- COMS3157 Advanced Programming
- ▶ COMS3131 Data Structures in Java
- ▶ ENGI1006 Intro to Computer Science in Python
- ▶ MSAE1001 Atomic Scale Eng. of New Materials

CONFERENCES AND SEMINARS

LeadDev Together. September 2020 - November 2020

An online seven-part course on engineering leadership's most fundamental challenges. https://leaddev.com/course/together-2020

Presenting Data and Information. San Francisco, CA. December 2019

A one day course taught by Edward Tufte on communicating information and data visualization. https://www.edwardtufte.com/tufte/courses

UNDERGRADUATE PROJECTS

Columbia Makerspace Site Redesign. Columbia University Makerspace. May 2017 - Sept. 2017

Volunteered to help the Columbia Makerspace management do a complete overhaul of their website.

Performed requirements elicitation with key stakeholders, analyzed needs for new website and did UX analysis to expose flaws with previous website. Redesigned site layout and mapping, and implemented design using Squarespace to allow staff to independently update site content. https://make.columbia.edu

Senior Project. CS Department, Columbia University. Fall 2016 Semester

Robotics and data structures visualization project using Sphero robotics platform to show path planning algorithms in real time on iOS app written in Swift. Project mentored by Paul Blaer, Lecturer In Discipline.

UI Design Final Project "Hatespotting". *Team mAPI, CS Department, Columbia University. December 2016* Group Project. Used Google Places API to surface reviews of businesses which contained derogatory, hateful or questionable language, and show results on a geographic heat map. Entailed two weeks of usability design, heuristic analysis, prototyping, testing then implementation. Uses Google Places, Google Maps APIs, and HTML5 Local Storage.

Advanced Software Engineering, JP Morgan Chase Project. *Team ExceptionHandlers, CS Department, Columbia University. Fall 2016 Semester*

Group project. Involved requirements elicitation from brokers, stakeholders to establish needs for brokerage app to automate exchange-traded fund (ETF) trading. Algorithmic trading involved querying a market server, responding to changes by adjusting number of shares sold using a Time Weighted Average Price (TWAP) strategy. Implemented a brokerage dashboard displaying the realtime status of buys and sells in Django, Python, SQLite, and Bootstrap. CI using Travis. Awarded Second Place Prize by panel of JPM judges.

EXTRACURRICULARS

- ▶ Application Development Initiative Labs, Columbia University, September 2015 December 2015
- ▶ Columbia University Chamber Ensemble, Oboe and Piano, September 2014 May 2015
- American Institute of Aeronautics and Astronauts, Columbia Branch, 2013 May 2017
- ▶ ICHS Symphony Orchestra: First Oboist, Head of Wind Section and Orchestra Secretary, 2009 2013

HONORS & AWARDS

- ▶ First in the Caribbean in Computer Science Unit 2 Caribbean Advanced Proficiency Examination, 2013
- ▶ Third in the Caribbean in Computer Science Unit 1 Caribbean Advanced Proficiency Examination, 2012

LANGUAGES

- ▶ Native proficiency in English, Jamaican Creole (Patois).
- Basic proficiency in Mandarin Chinese, Spanish.