

## EDUCATION

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- **Columbia University** New York, NY  
*Bachelor of Arts in Computer Science; GPA: 3.22* *Sep. 2014 – Feb. 2018*  
**Relevant Coursework:** Advanced Programming, Artificial Intelligence, Data Structures, Introduction to Databases

## EXPERIENCE

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- **LiveStories (Series A Startup, focused on civic data storytelling)** Seattle, WA  
*Software Engineer* *Sep. 2019 - Present*
  - Designed and implemented **REST** APIs in **Python** and **Node** to persist chart and app data in **PostgreSQL**
  - Developed new donut and bar chart components for a **React**, **d3.js**, and **TypeScript** component library
  - Implemented data transformation layers to ingest generic API data and return chart-specific data models
  - Improved charting UX by building custom data visualization controls (data grouping, bar axes, error bars, etc.)
  - Supported team through new product design, project onboarding, and d3.js introductions/walkthroughs
- **Pedal Technologies, Inc. (Data Visualization Consultancy)** New York, NY  
*Technical Co-founder* *Aug. 2017 - Aug. 2019*
  - Oversaw client acquisition, contract oversight, project management, and technical development
  - *Barnard History Data Portal* for Barnard College
    - Developed a mobile-optimized **Flask** site to showcase research on the institutional history of Barnard College
    - Built UIs, API endpoints, and a **MongoDB** database for individual/batch record upload, editing, search, duplicate record detection, and **d3.js** data visualization
    - Configured and maintained **Gunicorn** and **NGINX** servers on an **Ubuntu** VPS
  - *MapMaker* for Eurasianet (independent news organization)
    - Built a cross-platform **Python** app for producing custom, publication-quality maps
    - Developed a map-generation engine to fetch geocoded data and compile multiple map layers with **matplotlib**
    - Implemented a custom greedy algorithm to solve the Point-Feature Label Problem
  - Data visualization for One For The World (community-driven non-profit)
    - Developed an interactive data visualization in **d3.js** to help with donor recruitment and public relations
    - Built a **Flask** data portal to visualize personalized donation data for almost 400 donors and 19 charities
- **Two Bulls LLC (Digital Product Consultancy)** Brooklyn, NY  
*Software Engineering Intern* *Summer 2017*
  - Developed UIs with **Angular.js** for the Verizon Digital Kiosk, an interactive citizen engagement kiosk
  - Developed an onsite maintenance GUI with a **Golang** web server for accessing OS environmental variables
  - Integrated **DynamoDB** and **Serverless** backend endpoints with CMS frontend
- **Citi Bike, subsidiary of Motivate** Brooklyn, NY  
*Software Engineering Intern* *Summer 2016*
  - Inducted into *HackNY*, a competitive NYC-based technology startup fellowship
  - Built a **Python** web app for the Citi Bike dispatcher team to monitor bike levels at stations across NYC
  - Developed an open-source **npm** package that facilitates bike-share feed integration for ~50 cities worldwide

## PROJECTS *(for more information, visit <https://github.com/TheBatmanofButler>)*

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- **Strudel:** Platform for developers to quickly build real-time collaboration apps
  - *Contributions:* RESTful API in **Golang**, database in **PostgreSQL**, CRDT real-time collaboration server using **yjs** and **Node**, UI using **React** and **Material Design**, deployment using **Docker** containers on **AWS EC2**
- **The Perfect Number:** Visual data story on federal corporate income taxes (viewed >1000 times in 24 hours)
  - *Contributions:* Data visualization using **d3.js** and **HTML Canvas**, exploratory data analysis using **pandas**

## TECHNICAL SKILLS

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- **Proficient:** JavaScript (React, TypeScript, d3.js), Python (Flask, numpy, pandas, matplotlib), Golang
- **Familiar:** Docker, Material Design, MongoDB, Node.js, AWS (EC2, DynamoDB, S3), Linux, C, Java, Angular.js, CircleCI, Mapbox, Gunicorn, NGINX, yjs