

# Rihan Pereira

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## Experience

### Bitstreet Technologies

#### Software Developer

MUMBAI, INDIA  
Jan 2016 – Dec, 2017

- Managed multiple repositories. Encouraged use of **Git-flow** design among team of 4 developers.
- Contributions in logical and persistence tier, bitcoin(BTC) gateway integration, setup experimental bitcoin cash(BCH) **wallet app** end-to-end, batch process transaction metadata.
- Secured user accounts using **salting & hashing** technique and Multi-factor Authentication(2FA) with backup & recovery options.
- **HMAC & Signing** applied to JSON-REST/RPC API calls.
- Studied & implemented **Nonce** as an addition to secure message passing between internal services as a defense against replay attacks.
- Developed stateless cursor based **pagination API** at scale, spanning data over multiple MongoDB **collections**(*was reused twice in different application context in production*).
- Used **software multitenancy** on application server to share common set of resources among different tenants using (Role-based Access Control)RBAC and database isolation.
- Produced supportive documentation and designed system diagrams.

### Aasaanjobs

#### Software Development Engineer I

MUMBAI, INDIA  
Dec 2014 – July 2015

- Hands-on git, exercised git-flow workflow design, learned to resolve merge conflicts, branching, hotfixes, stash, interactive rebase.
- Refactored and wrote new responsive UI.
- Wrote Javascript code to handle REST endpoints and manipulate it for dynamic UI experience.
- Wrote automated UI tests using PhantomJS - headless browser environment.
- Write python/js scripts to execute database backups, traverse spreadsheet data to fanout notifications.

*I maintain my list of active and past projects at [rihbyne.github.io/diy](https://rihbyne.github.io/diy).*

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## Education

### California State University, Channel Islands

#### Master of Science(M.S) in Computer Science

CALIFORNIA, U.S.A  
Jan 2018 – Dec 2019(expected)

- Presented 'Macaroons as better web cookies' as part of COMP 524 Security class
- Presented 'Scalable Web Architectures(SWA)' as part of COMP 599 Graduate Seminar
- Produced a report on 'Image Segmentation methods' as part of COMP 510 Adv. Image Analysis Techniques
- Compiled a report on 'Financial Analysis between Heineken vs Boston Beer' as part of BUS 504 Finance & Accounting class
- resolved a small UI patch under **good-first-bugs** of [mozilla.addons.org](https://mozilla.addons.org) project.
- Sketched a interactive **dashboard** as part of COMP 549 HCI class using python-tkinter GUI lib/flask, which integrates an existing handwritten recognition neural network, allows to load/configure/save versions of it.
- Implemented CBC mode to systematically encrypt/decrypt a large plaintext file using 16 rounds of 64-bit DES.

### Mumbai University, St. Francis Institute of Technology

#### Bachelor of Engineering(B.S) in Information Technology

MUMBAI, INDIA  
June 2010 – May 2014

- Senior year project on data-driven IoT application using nodeJS/expressJS/raspberrypi
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## Skills

**Tools & Programming:** Knows Python/Javascript/Node.js and Java. Semantic HTML5/CSS3. Emacs user. Experience writing secure REST APIs in Django/Flask/Express.js. Familiar with Memcached, MongoDB, MySQLDB(e.g indexing, schema migrations). Enjoys challenges to architect and implement scalable web applications. Linux Power User. Well versed with Git.

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## Achievements

- Awarded and recognized as a “Top Performer”, “Best Performing Team”, “Meeting Expectations Plus Performance” for the year 2017 at [Bitstreet Technologies](#).