

# Suhrab Kurbanov

## Software Developer & Engineer

**Phone** (832)-231-0107

**WWW** SuhrabK.com

**E-mail** sir.suhrab@gmail.com

**GitHub** github.com/suhrabjan

**Olympic medalist**, experienced **Software Developer & Engineer**, also a **Geneticist** with strong data structure, algorithm, and problem solving fundamentals. Enthusiastic team player with strong passion about building world class applications.



## Professional Summary

- Extensive experience in development of scalable, responsive Web-based, Mobile and Client-Server Applications in Biotechnology and Ecommerce industries.
- Expert level skills in user interface (UI) development using **HTML/HTML5, CSS/CSS3, Bootstrap, Tachyons, Semantic-ui, JavaScript, ES6, ReactJS, Redux.**
- Solid experience in developing large scale Single Page Applications (SPA's) with **ReactJS** and **Redux.**
- Excellent in developing mobile applications with **React Native** and **Redux.**
- Extensive experience developing high-performance front-end **games** using **ES6, ReactJS** and **HTML's Canvas.**
- Solid knowledge of **CSS** and **Media Queries** to create **responsive websites** for different devices.
- Thorough understanding of web page **performance optimization techniques** and **PageSpeed insights.**
- Deep experience with front-end tools such as **Babel, Webpack, NPM, Yarn, Gulp, Grunt, ESLint, Prettify.**
- Strong experience of using **AJAX calls** and processing **JSON** format files between front-end and back-end.
- Experience with maintaining **relational Database** such as **PostgreSQL** and **NoSQL Database** such as **MongoDB**, using server-side languages such as **Python (Django)** and **Node.js (Express)**, respectively.
- Extensive experience in **version control** tools like **Git** and **GitHub.**
- Expertise in Object Oriented Programming (OOP) languages, such as **Python** and **Java.**
- Experienced in **Agile Scrum Methodologies** and working in **Sprint cycles.**
- **Detail-oriented, team player, self-motivated, dedicated**, open to **learn** and **share** the knowledge.



## Experience

2017 -  
present

### Software Developer & Bioinformatics Programmer

*North American University, Department of Computer Science*

- Developed and designed Genomics and Proteomics web applications using **Python Django, React** and **Redux**, with **Babel, Gulp, Webpack** and **Node.**
- Implemented **Advanced React Component Patterns** to make highly interactive, simple and more flexible components.
- Extensively used **Lodash** library for sorting data in application's Table components.
- Built client- and server-side search components with paginated data fetched from Ensemble **REST API** using **Axios** library.
- Optimized components for maximum performance across a vast array of web-capable devices and browsers.
- Built mobile versions off Genomics apps using **React Native** and **Redux.**
- Involved in all aspects of web-based **Software Development Life Cycle (SDLC).**
- Tested, maintained and recommended software improvements to ensure strong functionality and performance.
- Automated generation of input files for AutoDock Vina and visualization of these files with **Python** Molecular Viewer or PyMOL.
- Assisted in **Automation Testing** with **Python** and **Selenium** WebDriver, whenever needed.

2015 -  
2017

Python Engineer & React Developer

Antivlia LLC

- Revamped UI and app interface of an electronics selling e-commerce site, with **25,000+** unique visitors per month, using **Python Django, ReactJS, JavaScript, ES6, HTML5, CSS3**, and **Redux**.
- Designed and developed mobile e-commerce app using **React Native** and **Redux**.
- Developed online deal locator, catcher, detector and checkout application using **Python**.
- Developed UI and backend of PC price predicting web app using **ReactJS** and **Python**.
- Developed web scraping programs using **Python** for collecting competitive data.
- Designed and developed **Python** scripts that **automates** inventory purchasing, listing and selling.
- Extensively used **Git** for version control.
- Optimized sourcing efficiency of products, resulting in **annual revenue increase** by approximately **40%**.

2012 -  
2017

Graduate Research Assistant & Bioinformatics Programmer

Baylor College of Medicine, Texas Childrens Hospital

- Created single page application with dragging capability of transcription factor components to appropriate DNA target sites using **HTML canvas, ReactJS** and **Redux**.
- Designed and programmed front-end and back-end application, which calculates proper localization and graphical visualization of user-entered data using **Python** and **JS**.
- Identified role of the CD1d-restricted Natural Killer T cells in the immune response to Salmonella-based recombinant cancer vaccines
- Developed a cancer vaccine using attenuated Salmonella and type III secretion system to deliver recombinant tumor-associated antigens

Intern • Research Assistant

Center for Infectious Medicine, Karolinska Institutet, Sweden

- Expression, Refolding and Crystallization of an Artificially Mutated MHC class I Molecule with a Truncated HIV Peptide
- Presented the results in symposium, Cambridge University, London, UK



Skills

- **Languages:** HTML5, CSS3, JavaScript, ES6, Python, Java, SQL,
- **Tools, Frameworks, and Libraries:** ReactJS, React Native, Node.js, Django, Flask, Redux, Bootstrap, Tachyons, Semantic-ui, Webpack, Grunt, Gulp, REST, RESTful, NumPy, Matplotlib, Pandas, SSH, AWS
- **Databases:** PostgreSQL, MongoDB
- **Version Control:** Git, GitHub
- **Testing Tools and Frameworks:** Python Selenium, Jasmine, Mocha



Education

2008 -  
present

North American University

**Master of Science** in Computer Science

**Honors:** Represented University in Regional ICPC Programming / Algorithm Contest on November 10, 2018

2011 -  
2017

Baylor College Of Medicine, Houston, TX

Immunology & Microbiology **PhD** Program

2007 -  
2011

Fatih University, Istanbul, Turkey

**Bachelor of Science** in Biology with a minor in Bioengineering

**GPA:** 3.87 / 4.0

**Honors:** Ranked **1st** in the department throughout 4 years



## Recent Personal Websites and Fun Projects

**Portfolio** (Django, JS, <http://SuhrabK.com>)

**GenomeTools** (Django, JS, <https://genomics-tools-app.herokuapp.com/>)

**MemoryGame** (<https://suhrabjan.github.io/memoryGame/>)

**SnakeGame** (<https://suhrabjan.github.io/snakeGameForMyKids/>)

**GravitationalStarShower** ([https://suhrabjan.github.io/star\\_shower/](https://suhrabjan.github.io/star_shower/))

**DynamicResponsiveCircles** (<https://suhrabjan.github.io/DynamicResponsiveCircles/>)

**BulkImageResizer** (<https://pypi.org/project/BulkImageResizer/>)

**RSSReader** (React Native, haven't deployed yet)

**CarBookingApp** (React Native, haven't deployed yet)

**ImageSharingApp** (React Native, haven't deployed yet)

**GuitarTunerApp** (React Native, haven't deployed yet)

**MessagingApp** (React Native, haven't deployed yet)

**ParrotInTheCaveGame** (React Native, haven't deployed yet)

**E-CommerceApp** (React Native, haven't deployed yet)

**SocialWebsite** (ReactJS and Django)

**OnlineShop** (ReactJS and Django)

**E-LearningPlarform** (ReactJS and Django)



## Awards and Achievements

- |         |                                                                                                   |
|---------|---------------------------------------------------------------------------------------------------|
| 2018-11 | Ranked in Regional ICPC Programming / Algorithm Contest on November 10, 2018                      |
| 2017    | <b>hackerrank</b> : Problem solving website. Ranked in <b>top 0.5%</b> out of 1221929 contestants |
| 2007    | Won <b>Bronze Medal</b> in International Biology Olympiad, Saskatoon, Canada                      |
| 2006    | Honorable Mention in International Biology Olympiad, Rio Cuarto, Argentina                        |
|         | <b>Gold and Silver</b> medals in National Biology Olympiad of Turkmenistan                        |



## Publications

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| 2017 | "Development of an Effective Cancer Vaccine Platform Using Attenuated Salmonella Typhi". Xin Xu, Michael S Wood, <b>Suhrab Kurbanov</b> , James E Galen, and Leonid S. Metelitsa. Molecular Therapy, 2017 May, 25(5):359-359                                                                                                                                                                                 |
| 2016 | "Development of an Effective Cancer Vaccine Platform Using Attenuated Salmonella To Deliver Recombinant Tumor-Associated Antigens." Xin Xu, Michael S Wood, <b>Suhrab Kurbanov</b> , Linjie Guo, Xiuhua Gao, James E Galen, and Leonid S. Metelitsa. Molecular Therapy, 2016 May Volume: 24 / Pages: S74-S75.                                                                                                |
|      | "Development of an Effective Cancer Vaccine Using Attenuated Salmonella and Type III Secretion System to Deliver Recombinant Tumor-Associated Antigens." Xin Xu, Wael Abdel Halim Hegazy, Linjie Guo, Xiuhua Gao, Amy N. Courtney, <b>Suhrab Kurbanov</b> , Daofeng Liu, Gengwen Tian, Edwin R. Manuel, Don J. Diamond, Michael Hensel, and Leonid S. Metelitsa. Cancer Research, 2014 Nov 1;74(21):6260-70. |
|      | "Potent Therapeutic Activity of a Novel Salmonella-based Cancer Vaccine. " Xin Xu, Wael Hegazy, Xiuhua Gao, Linjie Guo, Amy Courtney, <b>Suhrab Kurbanov</b> , Micheal Hensel, and Leonid S. Metelitsa. Journal of Immunology, 2013, 190, 45.5                                                                                                                                                               |



## Reference

References are available upon request