

# Ahmad Atallah

Résumé

## EDUCATION

- 2012—2017** **Systems and Biomedical Engineering Department. School of Engineering, Cairo University**  
**Cairo, Egypt**
- **Bs.c.** of Systems and Biomedical Engineering, GPA 3.2.
  - **THESIS TITLE** – GPU-Based Visualization Application for Two Projection 2D-3D Image Registration In Radiation Oncology

## EXPERIENCE

- Dec 2019—Aug 2020** **Software Engineer (Frontend)—Part-time at Qobra**  
Started the core product desktop app with electron. Streamlined project's boilerplate to speed up development, with support for multiple tabs, shared state, and others.
- Dec 2018—Present** **Software Engineer (Frontend) at Swvl**  
Working on developing company's dashboards which includes a lot of front-end stuff besides some visualizations on maps. Also have the chance to participate in initiating the company's business dashboards, developing and publishing design system components packages on npm, with a continues development and delivering large set of transportation features.
- Feb—Dec 2018** **Software Engineer (Visualization) at Millensys Healthcare Solutions**  
Joined the medical imaging team to deliver and contribute in healthcare software solutions. My work included and not limited to using **OpenJPEG, LEADTOOLS, Windows API, OpenGL**, canvas drawing, advanced image processing techniques, 2D and 3D visualization ( DICOM viewing, processing, and MPR). Through my working period, I was assigned to advanced DICOM viewer project( web based, and Desktop), reporting tool and others.
- Oct 2017—Jan 2018** **Bioinformatics Intern at Pine Biotech**  
Working on both educational and analysis platform provided me with great experience in understanding Next Generation Sequencing and its algorithms in Bioinformatics era.

## SKILLS


- Programming** *Typescript, JavaScript, Scala, Ruby, Pascal, C/C++, OOP, Functional Programming.*
- Web Development** *React, Angular, Redux, Jest, Tachyons, Styled Components, Emotion, Theme-UI, Material-UI, MDX, Storybook, Gatsby, and others.*
- Build Tools** *Webpack, Rollup, Gulp, sbt, CMake.*
- Database** *SQLite, PostgreSQL, Mongo.*
- Visualization Tools** *ThreeJS, D3, WebGL (Intermediate).*
- Version Control** *Git, SVN.*
- Others** *Vim, Docker, CI/CD, Shell Scripting, Static Site Generators.*

## COURSEWORK

- Feb —Apr 2019** **Functional Programming in Scala Specialization —Coursera**
- Functional Programming Principles in Scala. 🌟
- Feb —Aug 2018** **Front-End Nanodegree —Udacity 🌟**
- Apr 2018** **Deep Learning Specialization —Coursera**
- Neural Networks and Deep Learning. 🌟
  - Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization. 🌟

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## PROJECTS

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| 2020      | <b>Tachyons Styled TSX</b>  <ul style="list-style-type: none"> <li>• Bring Tachyons, implemented with Emotion and Styled System, into React app with types in mind.</li> <li>• <b>Development</b> —TypeScript, React, Emotion, Styled System, Tachyons, Webpack.</li> </ul>   |
| 2019—2020 | <b>Swvl Design System Components</b> <ul style="list-style-type: none"> <li>• React-TypeScript components for Swvl design system.</li> <li>• <b>Development</b> —TypeScript, React, Rollup, Theme-UI.</li> </ul>   |
| 2019—2020 | <b>Swvl Business Dashboards</b> <ul style="list-style-type: none"> <li>• React-TypeScript business dashboards for Swvl as a transportation service.</li> <li>• <b>Development</b> —TypeScript, React, Redux, Webpack, Theme-UI.</li> </ul>   |
| 2017      | <b>GPU-Based Visualization Application for Two Projection 2D-3D Image Registration In Radiation Oncology —Graduation Project</b> <ul style="list-style-type: none"> <li>• Visualization cross platform for fast 2-projection 2D-3D registration that assists in patient positioning process during radiation oncology treatment procedures. The software development included rendering multiple digitally reconstructed radio-graphs(DRRs) projection images from 3D CT volume, similarity measures, optimization, and a user interface to visualize the differences.</li> <li>• <b>Development</b> —C/C++, VTK, ITK, Qt, Qthread, OpenMP, OpenCL.</li> </ul> |

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## AWARDS & ACTIVITIES

I like watching, and attending software conferences, and workshops from all over the world.

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| October 2016                                    | <b>RDI Egypt Competition —Project Award .</b><br>My project, an automatic system for MCQ exams correction, was awarded the 3 <sup>rd</sup> place in 2016 from RDI Egypt.   |
| 24 <sup>th</sup> —27 <sup>th</sup> October 2015 | <b>EMB 2<sup>nd</sup> Biomedical Engineering Workshop.</b><br>Participated in the 4 themes of the workshop including: <ul style="list-style-type: none"> <li>• High Performance Computing.</li> <li>• Medical Visualization.</li> <li>• Software Engineering &amp; Bioinformatics.</li> <li>• Embedded Systems.</li> </ul> |
| August 2014                                     | <b>IEEE EMBS International Student Conference —Project Award .</b><br>My Project, Derma, was awarded the 1 <sup>st</sup> place from the IEEE EMBS 2014.  |