

# Douglas K. Yoon

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## EDUCATION

### ***Santa Clara University School of Engineering*** **Bachelors of Science, Biomedical Engineering**

***Santa Clara, CA***  
**2013**

Specialized Coursework in:

- Tissue Engineering: Designed a synthetic suture. Attached transforming growth factor beta to biodegradable suture to reduce scarring.
- BioFuels: Designed a system to grow algae, ferment algae, and extract fermentation byproducts.
- Other coursework includes biomaterials, medical device product development, biosensors and bioinstrumentation, electric circuits, and biomechanics.

### ***LaunchCode LC101, Liftoff***

***St. Louis, MO***  
**2017-2018**

- Learned python and java
- Connected to sql database and created CRUD repositories in python and java
- Created a website

## EXPERIENCE

### ***Uniflow***

#### **Bioengineer**

***Santa Clara, CA***  
**Thesis Project, 2012 – 2013**

Developed and designed an innovative, removable prostatic stent to treat the symptoms of Benign Prostatic Hyperplasia (BPH), designed to increase patients' comfort level.

- Devised strategy to apply for FDA approval of a Class III device.
- Analyzed current market for medical devices used for BPH treatment.
- Attained hands-on experience with bio-materials, notably Nitinol, Tyvek, and Parylene coating; negotiated with vendors to obtain biomaterials.
- Printed 3D model of the stent using SolidWorks.
- Presented project to an audience of industry professionals, faculty, and students.

### ***Abbott Ambulance***

#### **Emergency Medical Technician**

***St. Louis, MO***  
**2015 – Present**

- Responded to medical emergencies in St. Louis City and St. Louis County
- Transported patients to and from hospitals
- Coordinated with doctors and nurses about patient care

### ***Mercy Hospital***

#### **Radiosurgery Intern**

***St. Louis, MO***  
**Summer, 2012**

- Reviewed patient statistics on the Mammosite balloon breast brachytherapy catheter.
- Developed a MatLab program that maximized healthy radiation exposure.
- Ran RapidArc, a therapeutic device used to minimize unhealthy radiation cancer treatments.
- Repaired tomography machines with clinical engineer.

## LEADERSHIP

### ***Vipers Lacrosse Club***

#### **Coach, U-13 Boys Team**

***San Jose, CA***  
**2014**

Coach games, run training sessions, and act as mentor to young players.

### ***Muny***

#### **Head Custodian**

***St. Louis, MO***  
**Summers, 2006 – 2012**

Lead team of ten that cleaned the largest outdoor musical theater in the country.

## SKILLS

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- Strong organizational, communication, problem solving, and analytical skills
- Ability to manage multiple projects, meet deadlines, and work in a team environment
- Lab experience using PCR, electrophoresis, bacterial and mammalian cell cultures
- Experienced with lab equipment: DMM, oscilloscopes, and function generators
- Proficient with MatLab, SolidWorks, and C language
- Python, Flask, SQLAlchemy, Jinja2
- Java, Spring, Thymeleaf, MySQL
- GIT, AGILE