

Python Developer - Bioinformatics Development Intern Python Developer - Bioinformatics Development Intern Cross Plains, WI

Looking for a development position where I can utilize my computer science skills to gain valuable experience in software development while making contribution to the organization. Authorized to work in the US for any employer Work Experience Python Developer - Bioinformatics Development Intern Morgridge Institute for Research - Madison, WI November 2016 to May 2017 Involved in the entire development life cycle including requirement gathering, design, implementation, testing and delivery of applications

- Worked closely with scientist to collect application requirement using Agile methodology
- Followed OOP concept and programming best practice to design and implement new functions
- Used Python libraries to maintain and enhance Grand Unified RNA Seq data pipeline (GUP)
  - Developed and deployed data retention policy using Python and Crontab to manage the data pipeline in order to minimize disk space
  - Used Pandas and XlsxWriter Python libraries to add an automated spreadsheet creation workflow to the pipeline for scientists' use
  - Used Celery framework to develop a new feature to support parallel processes and complete scientists' multiple requests simultaneously
  - Performed unit testing as required before release
- Created and modified Python unit testing scripts to improve the testing process and efficiency including mocks and stubs
- Participated in code review process and release new applications using Git technology

Student Python Programmer Space Science and Engineering Center - Madison, WI February 2015 to September 2016

Worked as a student programmer for website maintenance and data archive management

- Generated plots and data quality files using Pandas, Matplotlib, and other python libraries
- Created and published Python FLASK APIs for scientists to view and consume the real- time climate data and data files
- Updated and maintained the documentation for existing APIs using Bootstrap
- Created data order forms using Node.js, REACT/FLUX, and Bootstrap
- Developed user interfaces and functions using FLUX and Plotly.js to retrieve data and generate plots as required
- Improved data retrieval efficiency from Postgres database using enhanced SQL queries
- Involved in managing scientific data from space instruments for research

Education BS in Computer Science in Computer Science UW-Madison - Madison, WI September

2014 to May 2017 High School Diploma Middleton High School - Middleton, WI 2011 to 2014 Skills  
Ajax (1 year), database (1 year), Postgres (1 year), Python (3 years), SQL (1 year), Java (3 years),  
Javascript (2 years), C (1 year), C++ (1 year) Links <https://github.com/kgao9> Additional Information  
Solid background in Computer Science with Bachelor degree from UW-Madison (May 2017)  
Extensive programming experience both in school projects and in professional environments  
Experienced and skillful developer in Python in Unix platform for 2 years Adept and experienced in  
multiple programming languages Excellent working knowledge in database application  
development and SQL queries Experience in scientific computing and API development Solid  
understanding of OOP concepts & software development Life Cycle methodologies Self-Starter,  
quick learner and motivated team player Positive can-do attitude and pay attention to details  
Technical Skills Programming Languages: o Proficient in Python, Java, JavaScript o Experienced  
in C/C++, HTML/CSS, R, MatLab, Assembly o Experienced in Unix scripting in Bash Database  
skills: o Database: Postgres, MongoDB, Influx, Firebase o Basic and advanced SQL queries  
Software methodologies: Test-Driven Development, Agile processes Web Services Experience:  
RESTful, Ajax, XML, JSON Frameworks: Celery, Flask, Ionic, ReactJS, AngularJS IDE: Rstudio,  
Eclipse, Dreamweaver Testing skills: mocks, stubs, unit tests Version Control Tools: Git, Jira,  
etc. Python libraries: Pandas, NumPy, XlsxWriter, netCDF4, Psycopg2, Subprocess, matplotlib  
Operating System: Windows, Mac OS, Linux

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