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# Patrick Rademacher

## Computer Scientist/Software Engineer

Multi-faceted programmer and educator who embraces the opportunity to serve as a team player. Goes above and beyond expectations. Motivated to learn, grow and excel in the computer science arena as a software engineer and web developer. A penchant for teaching also inspires me to serve in these disciplines as well.

## Education

### 2018 - 2020, Portland State University

New Beginnings Program (Post Baccalaureate) + Master of Science: Computer Science

- Selected Master's Coursework: Databases, Algorithms, Quantum Computing, Theory of Computation, Internetworking Protocols, Artificial Intelligence, Machine Learning, Front-End Web Development, Modeling and Simulation in Python, Numerical Computation, Software Engineering, Open Source Software, Functional Programming

### 2013 - 2014, Michigan State University

Teaching Certification: Secondary English Teacher

### 2008 - 2013, Michigan State University

Bachelor of Arts: English; Minor: Psychology

## Projects

### Estimating NBA Draft Picks' Longevity Through Machine Learning Models:

- Utilized support vector machines (SVM), logistic regression, and random forest Python libraries on biometric data and college statistics to predict number of games played per player

### 'Pat Chat' - Instant Message Chatroom Application:

- Internet Relay Chat protocol where clients connect to a central server and communicate via chatroom messages using Python socket and threading modules
- Users' capabilities include creating, joining, and deleting chatrooms; broadcasting messages to specific users and rooms; and setting up personal login information and credentials

### 'Uncle Buck' - Financial Calculator:

- Created an online financial independence calculator application as an open source tool using CSS, JavaScript, and React
- Users input personal information to receive feedback on current financial status and steps for moving forward to reach particular goals

## Work Experience

### 2018 - Present, Substitute Teacher, Beaverton School District

- Teach at a multitude of elementary, middle, and high schools in comprehensive suburban district
- Follow teachers' lesson plans and instructions but create own on the fly when not provided
- Instruct a large variety of classes such as computer science, English, all levels of math, PE, theater, and more

### 2013 - 2014, Student Teacher, Lowell Area Schools (Lowell High School)

- Taught freshman and sophomore English in comprehensive rural district
- Anchored all lessons in Common Core State Standards
- Created formative assessments through journal entries, dialogic practices and discussions, exit tickets, and online polls that aligned with and worked towards unit and course goals

## Skills

- Programming: Python, C, C++, JavaScript, Java, Haskell, SQL
- Web Development: HTML, CSS, Bootstrap, React, RestFUL API, Node.js
- Databases: Postgres, MySQL, Pandas, sqlalchemy
- Tools: Linux, Jupyter Notebook, Matplotlib, Visual Studio Code, IntelliJ, JUnit, Mockito, Travis, Git, LaTeX