# Michael Chunko

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## Education

**Bachelors of Science in Computer Science, Minor in Mathematics**  Aug 2018 – May 2021
Stevens Institute of Technology, *Hoboken, NJ*
***GPA** – 3.97*
- **Teaching Assistant**:  Automata and Computation, Algorithmic Complexity, Compiler Design
- **Selected Completed Courses**: Compiler Design, Machine Learning, Computer Vision, Algorithms, Data Structures, Compiler Design, Systems Programming, Database Management
- **Selected In–Progress Courses**: Deep Learning, Web Programming, Operating Systems

## Skills

**Programming**: C, C++, Python, Java, OCaml, Scheme
**Web**:  JavaScript, PugJS, HTML5, CSS
**Misc. Tech**:  UNIX, Git, Linux, Windows, MATLAB, GNU Octave, LaTeX, MS Excel

## Experience

**Teaching Assistant, Stevens Institute of Technology** *Hoboken, NJ*  Dec 2019 – Current
- Assistant for Automata and Computation (undergraduate level), Algorithmic Complexity (graduate level), Compiler Design (graduate level)
- Created new assignments for students to nurture an understanding of the material
- Assisted students in gaining an understanding for the topics taught in class both in one–on–one sessions and in groups of up to ten students

**LaTeX Typesetter, Stevens Institute of Technology**, *Hoboken, NJ*  Oct 2018 – July 2020
- Created documents written in LaTeX and wrote .TeX code
- Provided IT assistance

## Projects

**OAT Compiler**, Stevens Institute of Technology *Hoboken, NJ*  Jan 2020 – May 2020
- Designed a fully fledged compiler, parser, and lexer for OAT (a C–like language)
- Capable of lexing and parsing raw OAT code, compiling from OAT to LLVM, compiling from LLVM to X86, and simulating X86
- Optimized the output between each step, reducing code size and improving efficiency

**Snake DQN**, Personal *Howell, NJ*  May 2020 – Jun 2020
- Used Keras to create a Deep Q–Network to learn and play the classic game of Snake
- Programmed an implementation of Snake in pygame

**Language Detection**, Personal *Howell, NJ*  Mar 2018 – Jun 2018
- Designed and programmed a neural network capable of identifying the language of a given word with high accuracy
- Developed working knowledge of the TensorFlow library for creating neural networks

**Rogue**, Personal *Howell, NJ*  Mar 2019 – Aug 2019
- Created a procedurally–generated game rendered with text–based graphics
- Turn–based combat through procedurally-generated levels including multiple enemy types, random item drops, upgrades, and an experience system

**TaylorFit-RSA**, Simetrica, LLC *Metuchen, NJ*  [taylorfit-rsa.com](taylorfit-rsa.com) Aug 2020 – May 2021
- Maintained a website used for data prediction and modeling written in a combination of Stylus, Coffeescript, Pug, and Knockout
- Worked with a team to provide thorough documentation, fix vulnerabilities and bugs, and improve the user experience
- Created new functionalities based on user requests including better predictive functionalities and automatic model fitting

**RayTrace**, Personal *Howell, NJ*  Jul 2020 – Aug 2020
- Designed and programmed a software–based implementation of the ray tracing rendering technique
- Capable of accurately simulating perspective, reflections, refractions, shadows, and other optical effects