

# Michael Chunko

## 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 Courses:** Compiler Design, Machine Learning, Computer Vision, Deep Learning, Web Programming, Operating Systems, Database Management

## Skills

**Programming:** C, C++, Python, Java, OCaml**Web:** JavaScript, HTML5, CSS**Misc. Tech:** UNIX, Linux, Windows, Docker, Git, Mercurial

## Experience

### Production Engineer, Meta (formerly, Facebook) *Cambridge, MA*

Sep 2022 – Jan 2023

- Improved the performance and functionality of routing services
- Improved the compiler and validator for domain-specific languages
- Worked with an international team to design systems in C, C++, and Python

### Systems Software Engineer, Kulicke and Soffa Industries *Fort Washington, PA*

Jun 2021 – Sep 2022

- Designed C and C++ real-time, embedded systems for semiconductor packaging machines
- Lead the development and maintenance of software for new machine designs
- Collaborated with electrical and process engineers, both domestically and internationally, while maintaining deadlines
- Worked in an agile environment with a focus on test-driven development

### Teaching Assistant, Stevens Institute of Technology *Hoboken, NJ*

Dec 2019 – May 2021

- 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

### L<sup>A</sup>T<sub>E</sub>X Typesetter, Stevens Institute of Technology, *Hoboken, NJ*

Oct 2018 – July 2020

- Created documents written in L<sup>A</sup>T<sub>E</sub>X and wrote .TeX code
- Provided IT assistance

## Projects

### TaylorFit-RSA, Simetrica, LLC *Metuchen, NJ*

[taylorfit-rsa.com](https://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

### 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

### 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

### 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 while achieving a high score
- Programmed an implementation of Snake in pygame